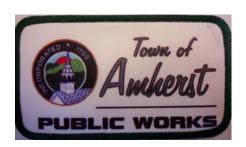
Town of Amherst

Emergency Communications Analysis Report





March 11, 2004

Final Report

Carl E. Weber, Town Administrator Gary D. MacGuire, Chief of Police Brian M. Gleason, EMS Director John T. DeSilva, Fire Chief Bruce W. Berry, Director of Public Works

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Introduction

On March 7, 2003 the State of New Hampshire Department of Safety, Division of Fire Safety and Emergency Management announced Planning Grants for updating local emergency operations plans. The Town of Amherst submitted its application on April 18, 2003 that included funds for an outside consultant to review and report on Amherst's interoperability. The grant was awarded in May of 2003 and the Town moved forward and hired Communications Analysis Associates of Newton, MA to perform the study.

Communications Analysis Associates Objectives

The Town of Amherst recognized that it needed to solve its existing problems with interoperability of its radio communications between municipal organizations such as Police, Fire and EMS. Police and EMS are on high band, the Fire and Highway Departments are on low band. The difference in bands prohibits direct radio communications between Departments. The inability for inter department radio communications is a potential risk to all concerned.

A second issue that the Town identified was the need to develop a communications plan that would allow Amherst to continue to provide emergency services should the present dispatch center services provided by MACC Base for whatever reasons fail.¹

In addition, the 2003 renegotiation of the Milford Area Communication Center (MACC Base) contract, it became evident that due to the rising cost of the current arrangement, set at \$211,000² for Amherst's 2005 fiscal year (an increase of \$55,000 or 33 percent), combined with an ever decreasing level of professionalism and service, that other options should be considered prior to committing over a million-dollar³ long-term contract.

¹ For the complete report, see the appendix.

² Amherst's fiscal year creates a need to budget additional funds since MACC Base's budget increase begins half way through Amherst's budget year so this number may differ slightly from the official calendar year numbers at MACC Base.

³ Calculated as the cumulative contract over the next 5 years at over \$200,000 per year.

Identified Options

The following dispatching options have been identified and are available to the Town:

- Remain at MACC Base, and attempt to improve the level of service while discovering ways to minimize the increasing budgets.
- Dispatch Police, Fire, EMS and DPW internally, with the potential of having a small town or two join Amherst to share/defer costs.
- Move all dispatching services to the Hillsborough County Sheriff's Department.
- Move Police and DPW to the Hillsborough County Sheriff. This
 option creates two separate sub-options for Fire and EMS.
 - Sub-option #1: EMS and Fire are dispatched from Derry Fire.
 - Sub-option #2: EMS and Fire are dispatched from Southwest Mutual Aid in Keene.

This analysis summarizes each option, and lists in detail the pros and cons of each option, the equipment, technology, or barriers to implementing that option, and each option's relationship to the overall goal of creating greater interoperability between the Police, EMS, Fire, and DPW departments.

Interoperability Defined:

"Ability to work with each other. In the loosely coupled environment of a service-oriented architecture, separate resources don't need to know the details of how they each work, but they need to have enough common ground to reliably exchange messages without error or misunderstanding. Standardized specifications go a long way towards creating this common ground, but differences in implementation may still lead to breakdowns in communication. Interoperability is when services can interact with each other without encountering such problems."

⁴ http://looselycoupled.com/glossary/interoperability.

A simpler definition:

Interoperability means the ability of radio equipment on different systems to communicate with each other.⁵

After the events of September 11, 2001, it became clear that public safety entities need to interact and communicate without obstacles between departments. Tragically, poor radio communications may have led to the loss of 120 firefighters in the World Trade Center. In August of 2002, at a press conference, firefighters claimed that those firefighters in the tower were unable to hear a commander on the ground ordering them out of the building, half an hour before it collapsed.⁶

The McKinsey report, the independent report commissioned by the New York City Fire Department, indicated that:

"Firefighters and EMS personnel were hindered in their response on September 11 by multiple failures of communications systems and processes and technology limitations."⁷

The McKinsey report also highlighted the failures of interoperability and lack of sharing of information between the three emergency services on the ground. Because of the new awareness of the importance of interoperability, it will have a major influence on the recommendation of this report.

Interoperability Note:

Currently, Police and EMS departments are on the same frequency band (VHF), but Fire and DPW departments are on a much lower band that prevents all agencies from talking to each other. A few years ago, there was a plan in place to move the Fire Department to a much higher frequency band (UHF) that would have created the same interoperability issues. This plan was put on hold, pending further study. After the report by the Communication Analysis Associates, it was clear that each department should be on the same frequency band, and all decisions should be coordinated between departments and no equipment purchase or department communication initiative should be completed without evaluating its place in the overall communication plan for the Town.

⁵ "After 9/11 Agencies Trying to Get on Same Wavelength," James Ridgell, Washington Business Journal, From the September 27, 2002 print edition.

⁶ UK 9/11: Will Our Emergency Radio Networks Withstand a Major Disaster? Graham Wilde, Peter Kingsland, Ross Parsons, and Bob Marshall, BWCS, September 11, 2002. http://www.bwcs.com/whitepapers/UK 9-11.pdf

⁷ Increasing FDNY's Preparedness, McKinsey & Company, August 2002, p. 85.

Town of Amherst Dispatching Option Analysis Report March 11, 2004

"Interoperability has been a major focus among public safety organizations and governments for years, but has become a national focus following the Sept. 11 attacks. Many public officials have said first responders in many jurisdictions cannot communicate with one another because many operate on different radio frequencies."

Interoperability doesn't just happen; it must be planned.9

For more information on the interoperability issues, please see the complete report in the Appendix.

Purpose of Report

The purpose of this report is to provide the Amherst Board of Selectmen with an analysis of the various dispatching options facing the Town of Amherst to better aid their decision making regarding the future of emergency communications in Amherst. In addition, this report will outline some of the short and long-term communication needs that currently are, and should continue to be addressed to improve interoperability regardless of the option selected by the Board of Selectmen.

⁸ 9/11 workers on right wavelength, Dibya Sarkar, Feb. 04, 2002 http://www.fcw.com/geb/articles/2002/0204/web-pswn-02-04-02.asp

⁹ After 9/11 agencies trying to get on same wavelength, James Ridgell, Washington Business Journal, From the September 27, 2002 print edition.

Executive Summary

History

On March 7, 2003 the State of New Hampshire Department of Safety, Division of Fire Safety and Emergency Management announced Planning Grants for updating local emergency operations plans. The Town of Amherst submitted its application on April 18, 2003 that included funds for an outside consultant to review and report on Amherst's interoperability. The grant was awarded in May of 2003 and the Town moved forward and hired Communications Analysis Associates of Newton, MA to perform the study.

In addition, during the 2003 renegotiation of the Milford Area Communication Center (MACC Base) contract, it became evident that due to the rising cost of the current arrangement, set at \$211,000¹⁰ for Amherst's 2005 fiscal year (an increase of \$55,000 or 33 percent), combined with an ever decreasing level of professionalism and service, that other options should be considered prior to committing to a million-dollar long-term contract. ¹¹

Purpose

The purpose of this report is to provide the Amherst Board of Selectmen with an analysis of the various dispatching options facing the Town of Amherst to better aid their decision making regarding the future of emergency communications in Amherst. In addition, this report will outline some of the short and long-term communication needs that currently are, and should continue to be addressed to improve interoperability regardless of the option selected by the Board of Selectmen.

Interoperability

After the events of September 11, 2001, it became clear that public safety entities need to interact and communicate without obstacles between departments. Tragically, poor radio communications may have led to the loss of 120 firefighters in the World Trade Center. In August of 2002, at a press conference, firefighters claimed that those firefighters in the tower were unable to

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¹¹ The cumulative effect of a 5 year contract at over \$200,000 per year.

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The Process

Consultants Report

The Communications Analysis Associates report was presented to the Selectmen and reviewed the requirements of establishing an Amherst Emergency Communications Center as well as stressed the importance of interoperability and described some of the options necessary for improved radio coverage in the Town.

Site Visits

The Town visited KMA on December 12, 2003 to tour the facility and have a first-hand look at the operation. On December 17, 2003, the Town toured the Derry Fire facility. In addition, each dispatching entity came to Amherst to see

¹² UK 9/11: Will Our Emergency Radio Networks Withstand a Major Disaster? Graham Wilde, Peter Kingsland, Ross Parsons, and Bob Marshall, BWCS, September 11, 2002. http://www.bwcs.com/whitepapers/UK 9-11.pdf

¹³ After 9/11 agencies trying to get on same wavelength, James Ridgell, Washington Business Journal, From the September 27, 2002 print edition.

¹⁴ Increasing FDNY's Preparedness, McKinsey & Company, August 2002, p. 85.

the current operation and determined the logistics of providing service to the Town. KMA came on November 17, 2003, Hillsborough County Sheriff was here on December 16, 2003 and Derry Fire visited on January 28, 2004.

Identified Options

While the consultants were reviewing the operation, the Department Heads were tasked with identifying any potential options available to the Town for dispatching services. The following dispatching options have been identified and are available to the Town:

- Remain at MACC Base, and attempt to improve the level of service while discovering ways to minimize the increasing budgets.
- Dispatch Police, Fire, EMS and DPW internally, with the potential of having a small town or two join Amherst to share/defer costs.
- Move all dispatching services to the Hillsborough County Sheriff's Department.
- Move Police and DPW to the Hillsborough County Sheriff. This
 option creates two separate sub-options for Fire and EMS.
 - Sub-option #1: EMS and Fire are dispatched from Derry Fire.
 - Sub-option #2: EMS and Fire are dispatched from Southwest Mutual Aid in Keene.

Dispatch Presentations

Each dispatching agency presented before the Board of Selectmen as well and the dates appear below. A more detailed look at this can be found in the appendix that includes a review of the Board of Selectmen minutes as well as any presentation that was given on that day.

- KMA- 2/9/04
- HCSD- 2/16/04
- Derry- 2/23/04

Dispatch Options and Costs

Dispatch Option	Cost	Cost of Department Upgrades
Milford Area Communication Center	\$204,615.55 (\$211,000 FY 05 Budget)	None
New Amherst Emergency Dispatch Center	\$151,000.00	\$30,000
Hillsborough County Sheriff (Police and DPW only)	\$55,000.00	Minimal to \$40,000 <u>+</u>
Derry Fire Department (Fire and EMS only)	\$37,068.26	Minimal
Southwestern NH Mutual Aid ((Fire and EMS only)	\$64,372.00	Minimal

Recommendation Summary

The Department Heads are unanimous in their final conclusion that Amherst should move forward with in-house 24/7 dispatching services as outlined earlier in this report. This was not an easy decision. After review of the options available, it became clear that for interoperability and more direct control, the in house option presents the best opportunity to meet each department's needs. In addition, this option allows the Town to avoid the political issues that arise in trying the meet the needs of not only a multi-agency, but also multi-jurisdictional operation.

Some of the options, such as Derry Fire or KMA would present a high level of service for the Fire and EMS department, but at the cost of breaking up our dispatching services into multi-agencies, which may have been the mindset in the past, but on both the New Hampshire and the National level, entities are beginning to look at complete dispatching services, due to the greater ability to deal with interoperability, and less potential problems and conflicts. Most emergency events require all public safety agencies to respond, and the larger the incident, the greater the need for interoperability with them, and the other departments such as Public Works as well as the Administration of the Town.

With the time available, and the resources already committed by the Town, moving forward with a comprehensive emergency communications center would require the cooperative effort of all departments, the Town Administrator and the Board of Selectmen. This option would not require an additional appropriation to make it a reality. Developing a Town of Amherst emergency communication center should result in a greater level of service for the Town for the same dollars already appropriated, or less.

Report Overview Parameters

This section describes the key elements of the desired Town of Amherst's Public Safety Communications Plan. This communications system must provide the means by which emergency resources can be accessed, mobilized, managed, and coordinated in both day-to-day and disaster situations. The Town of Amherst communications system must therefore employ sufficient communications paths and operational capabilities among all participants to facilitate effective public safety communications.

The Town of Amherst must have the ability to expeditiously receive and process any incoming requests that report emergencies and require emergency assistance. The goal is to assure a system whereby all individuals should be able to summon help rapidly in an emergency situation whether for medical, police, fire, rescue, public works or other emergency need. Local, statewide, and national uniformity is required to fully enable this concept.

Summary of Existing Conditions

This section outlines the existing conditions of the emergency call and dispatching practice for each department and describes its particular dispatching arrangement that include a summary of process, frequencies, equipment, issues, and antenna sites.

911 Access

Multiple emergency telephone number problems have largely been remedied through the establishment of public safety answering points (PSAP) with a single number to call for all emergencies in any given area. The PSAP can be part of an existing dispatch center or may be an autonomous agency established for this purpose.

The State of New Hampshire has provided for a cohesive statewide emergency telephone number "9-1-1" system to provide citizens with this rapid direct access to public safety agencies. Most residents of the state also have enhanced 9-1-1 (E9-1-1). E9-1-1 contains several added features including: the automatic number indicator (ANI), and the automatic location indicator (ALI) that provide added safeguards in case the caller hangs up before giving all necessary information to the telecommunicator. The lack of ANI/ALI information on most wireless calls is a serious problem for EMS and may be addressed with federal legislation.

Within New Hampshire, E9-1-1 is working with legislators to enact provisions for all wireless 9-1-1 calls.

Amherst Police Department – Existing Communications Set-up

The Amherst Police Department (APD) is currently licensed with the Federal Communications Commission (FCC) on two VHF frequencies. One frequency (154.875) is utilized for voice communications, and the second (158.790) is utilized for data transmissions only. Both frequencies have single transmitter sites located at APD, and utilize antennas located on the tower outside APD. A two-year-old Zetron analog console located in the administrative area of APD controls the voice frequency. In addition, a one-year-old Motorola Astro consolette, located in the same office, transmits both analog and digital voice over the 154.875 frequency utilizing a separate antenna located at APD. This system serves as the redundant component for voice transmissions. The data transmissions are currently controlled by a personal computer linked via radio and modem to the Mobile Data Terminal (MDT) network. There is no back up for this system.

A dual head, four track VHS audio recorder manufactured by Racal, records the voice radio frequency and several telephone lines. This recorder is over 10 years old, is not supported by the manufacturer anymore, and is too small for the current operation. This unit is overdue for replacement, and would have been replaced if the direction of the Town of Amherst emergency communications was clear.

The current equipment allows the APD to serve as a total redundant back up for all Town of Amherst emergency services. Currently, APD administrative personnel utilize the equipment to serve as primary dispatch for the Police Department for seventy-six (76) hours a week.

Amherst Police - Call Taking Procedures

The method by which an Amherst Police Officer is currently dispatched to a call for service depends upon two variables: the time of day and the number the call originates from.

In discussing the method of the call first, calls are either made via the regular police business line (673-4900) or via the statewide Enhanced 911 system. All Amherst calls made to 911 are initially answered at the E911 center in Concord. Those calls are then routed to the designated dispatch center for the Amherst Police Department, which is currently the Milford Area Communications Center (MACC Base). The E911 system does not have the ability to route calls

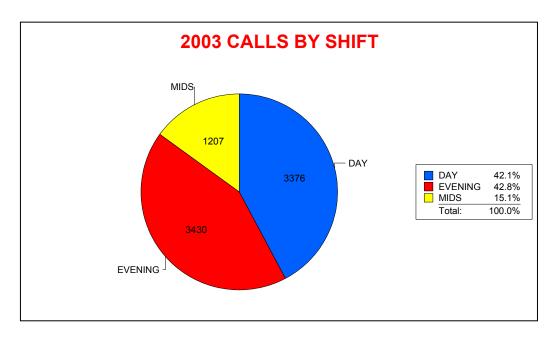
to two different locations based on time of day. Once the call is received at MACC Base, protocol determines how it is then handled. A true emergency is dispatched via police radio (frequency 154.875) by a MACC Base dispatcher to the appropriate Amherst police unit. Radio transmissions would continue to occur between the dispatcher and the police officer until the call was completed. A non-emergency call would be handled in the same manner during those days/hours when the Amherst Police Station is not manned by administrative personnel.

If the non-emergency call is received during the hours (8am-8pm M-F, 8am-4pm S&S) when the Amherst Police Station is staffed, the call would then be given via telephone by the MACC Base dispatcher to the Amherst Police Department (APD) employee. The APD employee would then contact the appropriate APD officer by police radio (frequency 154.875) and radio transmissions would continue between the two until the call was completed. Non-emergency transmissions could also be given to the Amherst Police Officer via a Mobile Data Terminal (MDT). The MDT allows a dispatcher and police officer to communicate in an instant message type format, wirelessly between a personal computer either in APD or MACC Base and a laptop in a police cruiser. This is particularly useful when the police radio, whose frequency is jointly used by the Amherst, Mt. Vernon, Milford, Wilton, and Lyndeborough police departments, is being utilized for other non-Amherst related calls.

In addition, this system allows for many dispatch commands (such as enroute, affirmative, negative, off-there, etc) to be performed via single keystroke by both dispatcher and police officer.

All calls made via the police business line are handled in much the same way as outlined above, the difference being that all such calls are initially answered locally, either by an Amherst Police administrative employee, or by a MACC Base dispatcher when the Amherst Police Station is closed. The location of the office answering the call is basically unknown to the caller, i.e. the same number is dialed and there is little differentiation in the way the employees answer the telephone. In either case, the employee would then contact the APD officer via radio or MDT and stay in contact until the call for service was completed.

2003 Amherst Police Calls by Shift



In addition to being dispatched to a call for service, contact can also be made with an Amherst Police Officer in person at the Station. During the hours the Amherst Police Station is manned, the citizen is greeted by an administrative employee, who then contacts an APD officer via radio/MDT with the pertinent information. Should the citizen arrive when the station is unmanned, they are directed by a sign to utilize an outdoor wall telephone for assistance. This telephone, when taken off the cradle, connects the citizen with a MACC Base dispatcher, who then, in turn, contacts an APD officer via radio/MDT.

Amherst Fire Department – Existing Communications Set-up

The Amherst Fire Department is dispatched 24/7 by the Milford Area Communications Center (MACC Base) located on the fourth floor of the Milford Town Hall. Emergency calls are received by MACC Base and then dispatched over a frequency of 33.640, using the transmitter located on the Federal Hill Fire Tower. As a backup both the Amherst Police Department and Hollis Communications can dispatch the Amherst Fire Department on 33.640, if MACC Base's transmitters fail. Amherst Police can do this utilizing an antenna located at the Amherst Police Department, and Hollis Communications can do this using a transmitter site located in the north-central part of Hollis. Both the Amherst Police Department's and Hollis Communications' antennas are unable to activate all of our member's pagers due to the incomplete coverage in the community.

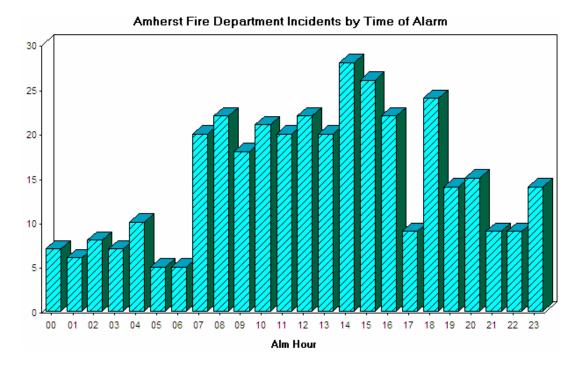
Amherst Fire Department – Call Taking Procedures

E-911 calls for the Amherst Fire Department are initially received at the State of NH's E-911 Public Safety Answering Point located at the Department of Safety on Hazen Drive in Concord. Once the E-911 call-taker determines the caller is requesting the Amherst Fire Department, the call is then forwarded to MACC Base where the ANI/ALI (Automatic Number Identification/Automatic Location Identification) information is displayed on a computer screen and the MACC Base dispatcher completes voice contact with the caller determining the particulars of the emergency.

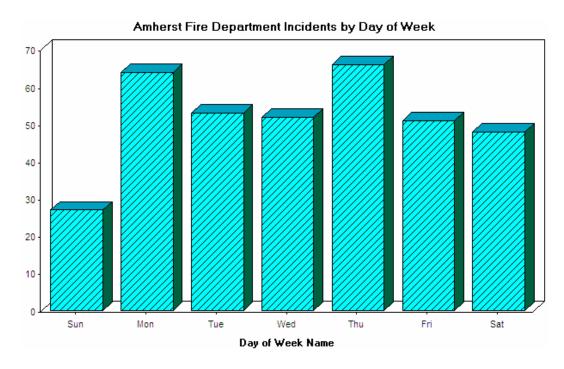
MACC Base monitors some of the fire alarms in the community utilizing an alarm monitoring machine known as the Keltron. If a fire alarm is received over the Keltron, MACC Base dispatches the alarm immediately. Due to the age of the Keltron in MACC Base, and its old technology, it cannot handle the receipt of new fire alarm systems and their newer technology. Consequently these alarms have to be monitored by a central monitoring facility such as Honeywell. The central monitoring facility will receive the alarm and then call MACC Base reporting the fire alarm and the location in Amherst. An example of this has been the Amherst Middle School and Souhegan High School. Both of these facilities have upgraded their fire alarm systems and as a result have had to pull their accounts from MACC Base and hire a central monitoring facility to monitor their alarms.

The Town of Amherst's plan is to move the Amherst Fire Department onto the same frequency band as Amherst EMS and the Amherst Police Department, and share a frequency with Amherst EMS, since the two Departments are experiencing an increasing number of incidents where they are working together. This will eliminate the need for separate radios and increase our interoperability capability.

The change to the VHF band and sharing frequencies with Amherst EMS is proceeding regardless of the dispatch agency, in the interest of interoperability in the Town of Amherst. With this in mind, regardless of who dispatches the Amherst Fire Department, the requirements will be the same.



The majority of the business calls to the Amherst Fire Department are received at the Central Fire Station. This is accomplished utilizing an automated answering attendant with the caller choosing the extension of the person they are looking for. If no one is available during regular business hours, or it is after hours, the caller has the ability to leave voice mail. Some business calls are received at MACC Base over the 673-1414 line. If this happens it is usually on nights and weekends when no one is in the fire station.



The Amherst Fire Department currently shares a frequency with four other communities in the Souhegan Valley, enhancing mutual aid response of towns to the West. However, the current frequency is not on the same band as the Amherst Police Department or Amherst EMS, therefore necessitating the use of two different radios if radio contact is desired with any other Amherst Emergency Services Department, or the Amherst Department of Public Works.

At the conclusion of each incident, the incident response times are requested to be faxed to the Central Fire Station from MACC Base, allowing the collection and reporting of data on local, State, and National levels.

The Amherst Fire Department has mutual aid agreements with neighboring fire departments that provide for automatic response to different areas of Town for reported building fires and other serious events. These are the Bedford Fire Department to remote areas in the north end of Town, the New Boston Fire Department responding out of the New Boston Air Force Tracking Station's fire station for the Chestnut Hill Road area, the Milford Fire Department for streets that border Milford, and the Merrimack Fire-Rescue for Route 101A and adjoining streets.

Amherst EMS – Existing Communications Set-up

All Amherst calls made to 9-1-1 are initially answered at the E9-1-1 center in Concord, NH. Here trained personnel receive, obtain information and may provide emergency medical dispatch services. A trained telecommunicator forwards the call and callers initial information to the designated regional dispatch center for Amherst, NH which is currently the Milford Area Communications Center (MACC). Simultaneously, as the E9-1-1 telecommunicator forwards the call to MACC Base, he/she may provide emergency medical advice according to prescripted protocols to the victim before the arrival of a field medical team. At MACC Base, upon notification of the need for emergency medical assistance, the dispatcher coordinates the response of the emergency medical unit (Ambulance 1-A-1 or 1-A-2) on FCC licensed frequency 155.160. In addition, the dispatcher coordinates with the other emergency agencies such as police, fire/rescue and DPW on their respective frequencies.

Amherst EMS - Call Taking Procedures

Once dispatched, emergency service agencies maintain communications with MACC Base while responding to the scene, while at the scene, while enroute to and at the hospital emergency department, and during their return to availability for further assignment. All Amherst EMS assigned duty members are issued a portable radio communications device and/or a personal

communications pager. This allows the emergency response crew to communicate with MACC Base and/or the receiving hospital directly.

Amherst DPW – Existing Communications Set-up

Public Works shares one radio frequency (39.500) with seven other communities. It is highly unlikely Police, Fire, or EMS would encounter an emergency that every other community served on their same frequency simultaneously has. Public Works faces this for every snowstorm, severe wind or rain storm. Picture the chaos citizen band radio endures and you can picture our free-for-all. Oftentimes, this jamming of the radio frequency leads to the volume being turned down and therefore leading to radio calls being missed both in stationary and mobile radios. During the season of "sun spots" we must also endure foreign fishing fleets that constantly jam the airwaves.

Amherst DPW Call Taking Procedures

There is no apparent movement on the part of MACC Base to isolate any highway departments by creating additional frequencies nor any discussion about the logistical problems that would be created adding additional radio frequencies to their system.

Amherst Public Works owns and maintains a twenty year old 100 watt base station and holds a license for our antenna site at the highway garage on 39.500. It also owns and maintains sixteen mobile radios (licensed for twelve) ranging in age of one to twelve years. The town also owns, maintains, and is licensed for a Public Works radio and antenna site at the Amherst Police Station.

MACC Base is licensed to transmit from the Milford Town Hall and the Mont Vernon Fire Station. If MACC Base is using the Amherst PD antenna site, they fall under the town's license. 39.500 is a low band frequency. The radios are not compatible with, nor can DPW talk directly to, any other Amherst town department. DPW must always rely on a MACC Base dispatcher to take the information and repeat it to the appropriate governmental body.

DPW extensively relies on four municipally owned cell phones to communicate with ourselves (portable and/or mounted in hands free charger holders in vehicles), our hired winter contractors who all own, and use cell phones along with many of our employees who use their personal cell phones during emergencies.

Detailed Review of Amherst's Options

The following section reviews each option in detail and weighs the pros and cons of each option and the equipment or other changes needed to implement this option.

Option 1: Remain at MACC Base

Summary of Option

The Milford Area Communications Center (MACC Base) was created in the mid 1970s comprised of 6 communities. Currently there are 5 member communities in the region that join together to provide dispatching services for the area. It serves a combined population of a little over 33,000 people for a cost of just over \$605,000.

MACC Base is governed by representatives from each community and has a five year agreement with the five communities to the West of Amherst, including Lyndeborough, Milford, Mont Vernon, and Wilton.

Existing MACC Base Cost Breakdown

<u>Town</u>	<u>Population</u>	<u>Percentage</u>	<u>\</u>	early cost
AMHERST	11166	33.79%	\$	204,615.55
LYNDEBOROUGH	1701	5.15%	\$	31,170.06
MILFORD	14087	42.64%	\$	258,145.95
MONT VERNON	2211	6.69%	\$	40,518.65
WILTON	3876	11.73%	\$	71,028.73
TOTAL:	33041	100.00%	\$	605,478.94

Department Needs to Facilitate MACC Base

Amherst DPW – Necessary Communication Upgrades

- 1. DPW will need to purchase and maintain two radios for each vehicle, low band to talk to MACC Base and high band to work around town and interact with other Amherst departments.
- 2. Means of documenting calls for service.
- 3. System to call forward, after hour calls.

Amherst Fire – Necessary Communication Upgrades

Unknown issues related to Fire Department moving to VHF frequency.

Detailed Pros and Cons of MACC Base

Pros

- 1. Known Entity
- 2. Basic Infrastructure in place
- 3. Greater ability for interoperability with towns west of Amherst
- 4. No additional management time required
- Fairly seamless transition from APD to MACC when APD closes its administrative offices
- 6. Fairly proximal physical location for direct interaction
- 7. Lack of direct liability
- 8. Local dispatch center, with some familiarity with the area
- 9. Licensed on existing frequencies and antenna sites
- 10. All Amherst departments funnel into the same center
- 11. Current system works
- 12. Experienced Public Safety Dispatchers
- 13. Reasonably Accurate

Cons

- 1. Below average service
- 2. Lack of professionalism
- 3. Lack of control in hiring, training, discipline, and policy making
- 4. Lack of control over liability that directly affects the Town
- 5. Inefficient use of manpower/inability to accomplish other tasks with personnel
- 6. Inequity of assessment based strictly on population
- 7. Poor system in place for redundancy¹⁵
- 8. Poor organizational structure
- 9. Poor management/response to Town concerns or issues
- 10. No regionalization with towns to east of Amherst
- 11. High cost of operation versus other dispatch comparisons
- 12. Inconsistent dispatch protocol compliance
- 13. Poor customer service¹⁶
- 14. Poor Town agency relations
- 15. Subject to multiple political entities
- 16. Poor physical site (background noise)
- 17. Minimal Site Security
- 18. High employee turnover
- 19. Amherst emergency services personnel are treated with negative attitudes by some of the dispatchers
- 20. Infrastructure upgrades needed: current hardware/software needs repair and/or replacement
- 21. Slow resolution of issues
- 22. No standardized or consistent coordination of communication between other communities

¹⁵ Last time Hollis backed up MACC Base for dispatching Amherst Fire, Hollis's antenna was unable to activate the majority of the AFD's pagers. January 11, 2004, 11:30 AM.

¹⁶ From time to time, has mixed up the administrative on-call list.

- 23. Difficult procedures to address any problems with particular dispatchers
- 24. No demonstrated certification or ongoing training programs for dispatchers
- 25. Department complaints of slow response radio calls
- 26. Frequent breakdowns of interagency communications
- 27. Inability to monitor alarms and physical security of town buildings with modern technology¹⁷
- 28. Apparent lack of consideration for non-emergency agencies¹⁸
- 29. Poor reporting of errors
- 30. Poor mutual aid interoperability outside of MACC Base¹⁹
- 31. No Quality Assurance Plan
- 32. Leased facility
- 33. No tracking of calls for service or numeric accounting of use by Towns
- 34. No demonstrated formal Incident Command training

¹⁷ Amherst would have to purchase 30 year old technology for the Recreation building just so it will match MACC Base's equipment and an apparent inability to monitor low temperature or sewer alarm for town hall. Both Souhegan High and Amherst Middle School have had to contact with other monitoring companies for a cost of approximately \$550.00 per year.

¹⁸ DPW has to share a frequency with eight other communities, and unlike emergency operations, most DPW related events (storms, etc.) all occur at once negating the usefulness of using the radios.

¹⁹ Amherst is bordered by Bedford, Hollis, Merrimack, and New Boston but there is no dispatching relationship with these communities. Merrimack is now automatically responding to events on 101A.

Option #2: Town of Amherst Dispatch

Summary of Option

This option involves expanding upon the infrastructure and personnel that are part of the existing Police Department records management program and creating a Town of Amherst Dispatch center that would include dispatching for Police, EMS, Fire, and DPW. This would also allow for the expansion of services to other departments that include the Recreation Department, for direct communications during all events, including life guards at the lake, recreation employees, as well as direct radio communications for the Board of Selectmen and Town Administrator during special events such as the 4th of July, and any catastrophic events.

Existing APD Records Management



(Existing APD Records Management/Dispatch Operation)

The existing personnel manage the operation of the office that includes the APD database, records, and reporting system by entering data, reports and crime information that is generated by the 24/7 police patrol shifts. Daily patrol generates 8,500 calls for service per year and this equates to numerous reports, phone calls, and records that have to be entered and maintained on a daily basis.

In addition, the personnel at the Police Station answer non-emergency phone calls (all business calls) and staff the service window from 8 AM to 8 PM Monday through Friday, and 8 AM to 4 PM Saturday and Sunday. Personnel also communicate with officers by radio, and directly through the computer.



(Example of Mobile Data Terminal (MDT) in APD Cruiser)

Annual Estimated Cost

The current budget of these existing services is part of the Police Department Budget and is approximately \$132,400 per year. In order to move to a full-time 24 hours per day, seven days per week dispatch center, that could dispatch for Police, EMS, Fire, and DPW, the actual budget increase would be approximately \$151,000 each year for a total of \$284,000 per year. In addition, there is an estimated \$30,000 in start up costs for the first year. A more detailed budget is on the following page.

Current Budgeted Amount \$132,400

Amount Needed \$151,000

Total Budget \$283,400

The FY 05 Budget contains \$211,000 for MACC Base, along with the \$132,400 in existing services for a total available budget of \$343,400, that represents enough to increase to 24/7 dispatch within the existing budget with enough available to address ongoing equipment needs for the next 3 to 4 years without an increase from the existing FY 05 budget levels.

ESTIMATED BUDGET FOR AMHERST DISPATCH CENTER Proposed Budget Year 04/05

Existing APD Records Management	New Start-	-up Costs	
Salaries			
Full Time \$74,594	Full Time	\$92,976	3x2080x14.90
Part Time \$20,264	Part Time	-\$4,768	reduced to 20h/week
Overtime	Overtime	\$4,649	4x52x22.35
Holiday	Holiday	\$5,900	11x8x3x22.35
Insurance / Benefits			
\$24,057		\$37,992	3 positions
Telephone \$10,500		\$4,000	
SPOTS Computer		\$5,000 **	\$4000 annually
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Office Supplies \$2,000		\$750	
Radio Repair \$1,000		\$2,000	
•			
		04.750.44	0750 II
Uniforms		\$1,750 **	\$750 annually
Training		\$7,152 **	\$1800 annually
Tuition		\$2,000 **	\$1000 annually
Tuition		Ψ2,000	ψ1000 armuany
Facility Upgrade		\$10,000 **	One time expenditure
Hiring / Physicals		\$1,250 **	\$500 annually
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Replacement Recorder		\$10,000 **	One time expenditure
Totals \$132,415		\$180,651	
		•	
Grand Total Year One		\$313,066	
Total Pocurring Rudget		\$292 OG4	
Total Recurring Budget		\$283,964	
Total Available FY 2005		\$343,415	
Total Afallable I I 2000		ψ 3 -το, τ ι ο	

^{**}Recurring expense without one time expenditures, start-up training costs, and other related expenses is \$151,549.

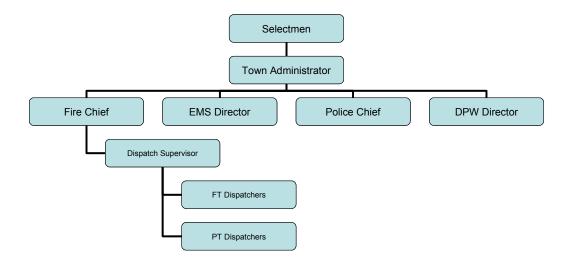
Note: This analysis presents the worst-case scenario regarding personnel with adding 3 additional full-time personnel with associated benefits. There are ways of staffing the 24/7 operation with a combination of full and part time employees. Regular part time employees would have regularly schedule shifts and the benefit of additional part time employees is you have a larger pool of personnel to cover holidays, sick days and other events that occur through out the year.

Dispatching Organization Structure

In order to function on a day to day basis, there should be a direct supervisor, or dispatching supervisor who manages the operation as well as dispatching. In addition to a dispatch supervisor, the operation needs to directly report to a department head. This direct reporting would change as personnel and experience change, but it should remain directly under one of the major public safety department heads, either Fire, EMS or Police.

For this analysis, it is recommended that the Dispatch Supervisor report directly to the current Fire Chief. Of all the current department heads, the Fire Chief has experience as a dispatcher, but this option would require the cooperative efforts of all the Department Heads, the Town Administrator, and the Board of Selectmen.

Reporting Structure



Operational, Procedural, and Quality Assurance Structure



In addition to direct reporting, the success of an interagency dispatch center is the continual review of the operation and procedural aspects of the center and put a formal quality assurance plan in place that is overseen by the Town Administrator, but requires all agencies, Police, EMS, Fire, and DPW to provide input and have a voice at the table on the larger picture issues facing the dispatch center. This would also serve as the coordinating entity for all issues, and promote a cohesive approach to dispatching, purchasing, and procedures.

This approach is consistent with the findings of the McKinsey & Company Report, and in many cases this report is applicable to most communities, if you replace New York, with any Town or City's name.

"Currently, the FDNY lacks an effective, well established process to manage the progress of technology initiatives involving multiple agencies. It also lacks the ability to ensure that these bureaus exchange information effectively. These shortcomings pose perhaps the largest hindrance to the Department's ability to effectively address some long-standing communications and technology problems."²⁰

²⁰ Increasing FDNY's Preparedness, McKinsey & Company, August 2002. p. 85

The report further states that the committee should have senior representation from each bureau or group involved in communication decisions and issues. The proposed structure is consistent with that standard, with the under the broad policy direction of the Town Administrator and ultimately the Board of Selectmen.

Some communities create multiple dispatch centers to address the perceived interests of each agency. The administrative structures created prevent the cooperation that is necessary to provide for interoperability. Successful multiple service dispatch centers need to utilize an administrative structure that includes all agencies involved in all policy and procedure decisions. For that reason it is imperative to consider the overall structure as well to ensure that Amherst does not fall victim to the mentality that a comprehensive, multiagency dispatch center cannot work.

Another interesting note in the McKinsey report is that it recommends pursuing evaluating their entire communication infrastructure as a city not as individual departments during its next round of Requests for Information or Proposals, and states that the Fire Department and the Police Department should cooperate more closely, and even mentions the possibility of common infrastructure:

"For example, the RFI/RFP mentioned above should determine whether a common NYPD and FDNY communications infrastructure would be more effective for the city, rather than two separate police and fire networks."²¹

Clerical and Project Benefits

By switching to a 24/7 dispatch, the records management work and data entry would still occur but increase to a 24/7-work schedule. Since emergency services work ebbs and flows based on numerous factors, during slower times, the dispatch personnel would also be trained to perform non-time sensitive work for all other departments. Some of this is occurring now, but this expansion would allow for a much greater amount of work, since historically, the midnight shift is slower than the other shifts.

This would include data entry for the Town Hall, editing and copying, and other special projects that may occur periodically for all Town Departments. A good example would be data entry for a new building permit program that would have a data base of inspections. This data is not time sensitive (does not need

²¹ Increasing FDNY's Preparedness, McKinsey & Company, August 2002. p. 92

to be done each hour) and could be performed on the slower dispatching shift. Another project could be the routine updating of the Town Website where departments would email different updates and the dispatching employee could upload them to the site during hours when the site is not experiencing a lot of use.

Another needed project is the archiving documents for all departments, but more importantly the Planning and Development Department. Dispatch employees could take a box from the Planning department and begin to scan and catalogue the file into an electronic form. There is a need to scan and archive a lot of material for Zoning, but it is hard to have the dedicated time at Town Hall to have this project move forward. Eventually, this would allow the Town to provide a property owner with a CD with all of the past permits, documents, and information we currently have on file for their property in a few minutes, not the days or weeks it currently takes to find and copy all of the archived records.

Amherst Dispatch Line-by-Line Discussion

<u>Salaries</u> - This budget is calculated on having one dispatcher around the clock by hiring three new full-time employees and utilizing the existing full-time clerical person and utilizing the executive assistant for 8 hours per week. In addition, the current total of 26 hours part-time coverage would be reduced to 20 hours per week to be used as needed.

The overtime figure is based on an average of four hours per week to cover emergencies and/or cover open shifts in an emergency. The holiday pay is computed at paying three people, eight hours of overtime pay for eleven holidays.

<u>Insurance/Benefits</u> - This line is based on adding three two-person health plans plus all other benefits associated with a full-time Town employee. A change in the number of full-time versus part-time personnel would alter this line by approximately \$9,000.

<u>Telephone</u> - This is a rough estimate of the cost of adding several additional telephone lines into the *communication center*. This number would be effected by logistical decisions made much later in the process, such as the number of new lines required and whether any existing lines within the Town would be moved to the *center*.

SPOTS Computer - This line would fund the cost of establishing a State Police On-Line Telecommunications System (SPOTS) terminal in the *center*. The Police Department obtained a federal grant to obtain the terminal that is currently located at MACC Base. It is believed the *center* would look to purchase new

hardware versus retrieve the equipment at MACC Base. In addition to hardware and/or installation costs, there are annual usage costs associated with a SPOTS terminal. After the initial expense, it is believed this cost could drop below \$4,000.

<u>Office Supplies</u> - This line would address the added costs of paper and supplies to run a *center* around the clock.

<u>Radio Repair</u> - This is an estimate of the cost to maintain additional radio/electronic equipment associated with an expanded communications facility.

<u>Uniforms</u> - This would be utilized to outfit all personnel in professional apparel.

<u>Training</u> - The bulk of this would be to pay the salary costs of personnel being trained for an average of three weeks by other personnel. This number would probably be able to be reduced in subsequent years. The tuition line would pay for the cost of professional courses.

<u>Facility Upgrade</u> - This is a one-time line to provide funds to alter the communications center facility or some remote facility. Examples of possible costs would be new work stations, wall/door movement, and equipment relocation.

<u>Hiring/Physicals</u> - The cost of testing and hiring four new employees. This line would be reduced in subsequent years by \$750.

<u>Replacement Recorder</u> - The current Department recorder records a total of four radio and telephone lines. It is reaching the end of it's useful life and it is no longer supported for maintenance. In addition, an expanded center would require a larger unit capable of recording more lines/channels. Depending on final requirements, this cost could be off by a few thousand dollars. This is a one-time expense.

Final Note: This analysis does not factor in any offsetting revenues from smaller communities that may want to be dispatched by the Town of Amherst. And careful consideration should be made prior to considering additional communities, because each additional community may create additional personnel and infrastructure needs, as well as additional political issues created by multi-community arrangements.

Department Needs to Facilitate Amherst 24/7 Dispatch

Amherst Police Department – Necessary Communication Upgrades

To serve as a basic stand-alone dispatch facility for the police department, there would be some required changes and/or upgrades to the current communication set-up. The recording system would need to be replaced. As stated above, this requirement exists even without any change in the existing system. In addition, a State Police On-line Telecommunications System (SPOTS) terminal would need to be added at the police station, and the existing computer server owned by the Town and located at MACC would need to be relocated to APD. Also, all E911 calls would have to be re-routed from MACC to APD. This is a simple transition with all hardware and software provided by the NH E911 system, at no cost to the town except providing sufficient telephone lines to answer all 911 calls. These changes would be the minimum required to address stand-alone police dispatching.

To create a proper stand-alone dispatch facility, additional upgrades would be required. To improve radio coverage, additional transmitter site(s) would need to be created. It is believed that one or two sites would be required for optimal coverage. Each site would require a transmitter, antenna, and back up power. One of these sites could also be utilized as a redundant back up site in case of a catastrophic event at APD. Such utilization would require a back up consolette be placed at the site, along with a small work area to allow it to be used as a dispatch facility during such a catastrophe.

An alternative to this option is negotiating an agreement with an existing dispatch facility to serve as such a back up. There would be some cost associated with this arrangement, such as telephone lines or radios, however there would be no way of estimating those costs at this time. The current administrative area and other areas of the police station would require some minor modifications, both to serve as a stand-alone dispatch facility as well as continue the existing administrative functions of the police department. These modifications are believed to be fairly minor, and could be accomplished using town personnel. To provide sufficient capability for a large incident, a second console should be added to the existing set-up. This would allow a second employee to work completely independently during such an event. The existing Motorola consolette does provide this function to a limited degree now, so this addition is not viewed as an absolute requirement.

Note: These costs are outlined as part of the \$30,000 of initial start up costs in the estimated budget.

Amherst EMS – Necessary Communication Upgrades

Due to the geographic topography of the towns of Mont Vernon and Amherst, several poor communication transmit locations exist. To improve transmission coverage, in-vehicle radio repeaters should be added to increase radio transmission output, and additional transmission sites should be added on the south end of Amherst, and at a point to be determined later in Mont Vernon.

To change the primary dispatch provider for the Amherst EMS department from MACC to any of the above listed agencies, would require some minimal equipment changes and possible reprogramming of existing equipment. At a minimum, the existing telephone circuit lines connecting Amherst EMS to MACC would be terminated, and replaced by similar lines connecting Amherst EMS to the selected agency. The cost for such lines is estimated to be more expensive due to the increased distance, however this should not be a major increase. Such an arrangement would provide the same radio coverage as would exist utilizing the Amherst EMS/Police transmitter/antenna. To improve the coverage, as well as eliminate recurring telephone line costs, the other option is to utilize the selected agencies existing transmitter sites (if available) connected via radio links to Amherst EMS. This would be a substantial one-time shared cost with Amherst Fire that would solve coverage issues for the length of the agreement between Amherst EMS/Fire and the selected agency.

Non-equipment changes would include the following data entry protocols:

- Dispatch & Response Criteria
- Amherst & Mont Vernon Street Demographics
- Incident Response Criteria (ALS intercepts)
- Resource Hospital Coordination
- ICS Coordination training
- Mutual Aid Coordination
- Redundancy Communications

Amherst Fire – Necessary Communication Upgrades

Changing the primary dispatch center from MACC Base to another entity would require the entering of our dispatch protocols into the new agency's Computer Aided Dispatch software system, notifying area fire departments of changes in dispatch center phone numbers and radio frequencies, and determining costs of either phone lines to a new transmit antenna, or hardware costs for radio links with the new dispatch center.

We are working with a Frequency Coordinator to obtain new frequencies from the FCC, and to license these frequencies at different sites in Town and on Federal Hill. As of the week of March 8, 2004, the Frequency Coordinator has identified several new frequencies and is preparing the FCC paperwork for licensing these new VHF frequencies for Amherst EMS, Amherst Fire Department, Amherst Police Department and Amherst Department of Public Works. These new frequencies, in addition to our current frequencies, will allow all the listed agencies to talk to each other using one radio, streamlining the number of radios required and controlling the costs to the Community. Additionally we have identified a number of Nationwide Interoperability frequencies that will give all the listed Departments the ability to talk to one another on the same channel during incidents in the Community.

Amherst DPW – Necessary Communication Upgrades

For Public Works there is no immediate conversion, the existing in place equipment could be used until the departments "more prone to emergencies" are up and running (one year-two years). After such time, or when deemed appropriate, we convert to a new "high band" frequency using the four ambulance radios and new or used purchased radios.

Detailed Pros and Cons of Amherst 24/7 Dispatch

Pros

- 1. Total and direct control
- 2. Provide additional level of service to Town/facility open 24 hours for emergencies and additional service for permits, etc.
- 3. Better ratio of dispatchers to units on the road
- 4. Better use of records management and CAD software
- 5. Promotion of team oriented approach with *one team* vs. two²² promotes a better quality of service internally and externally
- 6. More functional police station because of manning/ability to monitor building, people, and monitor alarms for municipal buildings
- 7. Use of existing facility/no new heating/AC/electrical costs

²² This is in reference to splitting up the services between multiple dispatching agencies.

- 8. Ability to create better mutual aid relationships with all neighbors, not just those to the west
- 9. Full access to SPOTS terminal at the PD
- 10. Improved access to resources (record checks, other sensitive info, dispatch tapes, etc)/no need for constant faxing of info
- 11. Improved interoperability with Amherst services due to closer relationships between the services and dispatchers. All Town Departments can be dispatched with immediate sharing of information
- 12. Faster resolution/correction of software/hardware issues as they'd be inhouse
- 13. Direct control over policy/procedures based on department input/cooperation
- 14. Immediate addressing of dispatching issues
- 15. The Dispatchers can do other Town work during the slow periods, i.e. data entering
- 16. Direct control of growth
- 17. The ability to offset costs by bringing other Towns onboard
- 18. Existing radios and antennas
- 19. Direct control over hiring, training, and setting the standards for employees
- 20. Experience in Police Dispatching
- 21. Enhanced 24/7 Communications w/ All Departments & Department Heads
- 22. Ability to grow as needed (only one political entity)
- 23. Possible grant \$\$\$ to assist expansion & security
- 24. Enhanced CAD & System Status Management that would include Fire and EMS
- 25. Greater control of special event monitoring (this would include customizing the dispatch for events, such as 4th of July)
- 26. Better interoperability control with mutual aid communities
- 27. Overall better service for same or lesser \$\$\$ than currently paying
- 28. Immediate access to a supervisor

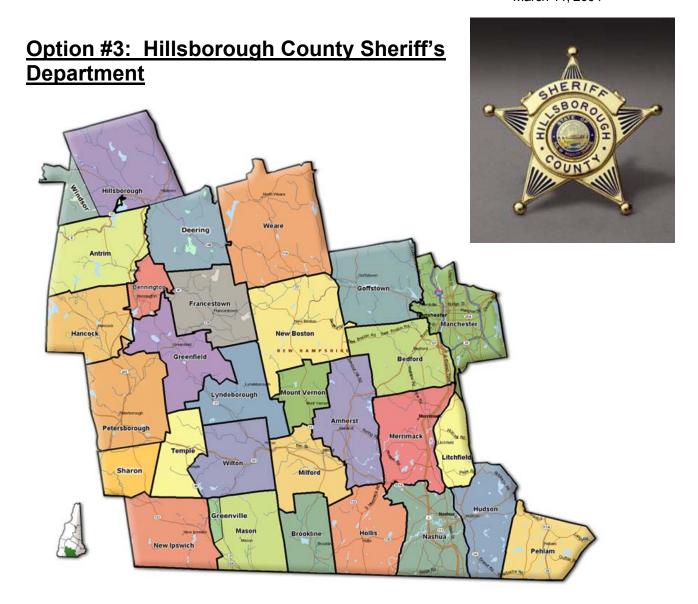
- 29. Full familiarity with area, equipment, and manpower.
- 30. Percentage of dispatch team already exists at APD.
- 31. Full control of the end product to include, but not limited to:
 - training
 - record keeping
 - Immediate access to the process of correcting customer service issues
 - Immediate access to the process of correcting dispatching issues.
- 32. Full control of the cost of implementation and operation.
- 33. Ability to chart and document actual usage by department.
- 34. If at some future time, EMS and Fire merge or utilize the same space (to include finishing off the second floor of Fire for sleeping quarters), dispatch center could be moved downstairs in old EMS area and occupy what would become a state of the art facility.
- 35. Conversion of DPW frequency to high band without the bureaucracy of going through another board.²³
- 36. Less competition for airtime without multiple communities
- 37. Direct control of the antenna sites.
- 38. Yearly budget would be lower then proposed MACC Base budget, with full municipal control over upgrades.

Cons

- Large amount of start-up work needed/policies, procedures, administration, hiring, training, etc
- 2. Infrastructure improvements required
- 3. Staffing headaches
- 4. Need to establish redundancy
- 5. Will require man-hours to manage/administrate

²³ This change can be made by contacting a frequency coordinator for Amherst and making changes to equipment in Amherst. Some radios will be provided by Amherst EMS, and there are no further licensing issues or political issues with outside agencies or communities.

- 6. Increased civil liability for the Town of Amherst
- 7. Infringes on existing physical space
- 8. Only one dispatcher on duty at a time
- 9. Costs
- 10. Resistance to Change
- 11. Tremendous effort required by all departments
- 12. Recruitment and retention issues
- 13. Training Costs
- 14. Licensing issues
- 15. Technical Repair Plan
- 16. Holiday Coverage (supervisor)
- 17. No current operational experience in 24/7 dispatching
- 18. Limited 911 call taking experience
- 19. May not dispatch any neighboring departments
- 20. No history for budgeting, only estimates
- 21. Provide time for continuing education of the dispatchers
- 22. History has shown it is difficult to have a combined dispatch center that serves all four services equally well
- 23. We own all the issues and problems
- 24. Once we own everything and have it staffed, it is difficult to return to out sourcing our dispatching
- 25. Need a work environment that has limited distractions
- 26. Startup costs could equal or be slightly higher than payment to MACC base.
- Radio upgrades
- Licensing of antenna sites.
- Repeaters and remote transmitters
- Staffing and training



Summary of Option

The Hillsborough communications division continues to provide emergency dispatch services twenty-four hours per day, every day, supplying radio and telephone communications not only for the Sheriff's Office, but for several communities in the County as well.

Police dispatch services provided for the towns of Francestown, Greenfield, Greenville, Litchfield, Mason, New Ipswich, Peterborough and Temple. We provide Fire Dispatch for Mason and Greenville, and EMS Dispatch for Mason, Greenville, New Ipswich and the Souhegan Valley Regional Ambulance Service. They also continue to provide dispatch services for the

Highway Departments of Greenville, Mason, New Ipswich, Peterborough and Temple. In addition, they also provide dispatch services for the Manchester Office of the Department of Probation and Parole.

The centralized dispatch provides an informational hub for the emergency services community of the County, while revenues from these services are returned to the County General Fund, reducing the county tax rate.

Calls for service in 2003 18,041

Calls for service in 2004 24,400 (projected) 24

The Office of the Hillsborough County Sheriff operates a 24-hour dispatch center to provide radio and telephone communications to and from deputies in the field. Also, other law enforcement agencies need to have access via computer, telephone, fax and radio to information on criminals wanted by our department. Also, we provide dispatching services to agencies who have requested it. In 2002, there were 153,206 dispatch phone calls and 583,101 radio transmissions.

Considering the Hillsborough County Sheriff for dispatching requires a decision to either have them dispatch for Police, EMS, Fire, and DPW, or just Police and DPW, which creates two separate sub-options for Fire and EMS.

Annual Estimated Cost

The estimated annual fees for the Town of Amherst are:

Police: \$50,000 Fire: \$14,000 EMS \$9,000 Highway \$5,000

Total \$78,000

In addition, any costs associated with implementation such as new equipment, relocation of existing equipment, telephone lines etc. would be the responsibility of the Town of Amherst.

²⁴ http://www.hcsonh.us/comm.html

Summary of Dispatch Statistics

Francestown is dispatched 24/7 (168 hours per week) for police only. Their call volume for 2002 was 3,659.

Greenfield is dispatched 24/7 (168 hours per week) for police only. Their call volume for 2002 was 3,683.

Litchfield is dispatched 88 hours per week for police only. Their call volume for 2002 was 8771.

Peterborough is dispatched 88 hours per week for police only. Their call volume for 2002 was 9,618.

Mason is dispatched 24/7 (168 hours per week) for police, fire, EMS and highway. Their call volume for 2002 was 5,421.

Temple is dispatched 24/7 (168 hours per week) for police only. Their call volume for 2002 was 3,301

New Ipswich is dispatched 128 hours per week for police and highway. Their call volume for 2002 was 8,055. They receive EMS response from Souhegan Valley Ambulance.

Souhegan Valley Ambulance Service is dispatched 24/7 (168 hours per week) for EMS calls in New Ipswich and Greenville. Their call volume for 2002 was 445.

Began dispatching for Greenville on January 1, 2004 for police, fire and highway. Their 2004 call volume is projected to be 4,000. They receive EMS response from Souhegan Valley Ambulance.

Department Needs to Facilitate Change to Hillsborough County

Amherst Police Department – Necessary Changes to Switch from MACC to HCSD

To change the primary dispatch provider for the police department from MACC to Hillsborough County Sheriff's Department (HCSD) would require some equipment changes. The degree of those changes is subject to some debate, but they will be presented in the form of minimal to maximal for this discussion. At a minimum, the existing telephone circuit lines connecting APD to MACC would be terminated, and replaced by similar lines connecting APD to HCSD.

The cost for such lines is estimated to be more expensive due to the increased distance; however this should not be a major increase. Such an arrangement would provide the same radio coverage as currently exists utilizing the APD transmitter/antenna.

To improve the coverage, as well as eliminate recurring telephone line costs, the other option is to utilize HCSD transmitter sites connected via radio links to APD. This would be a substantial one-time cost that would solve coverage issues for the length of the agreement between APD and HCSD. The termination of the agreement would result in APD losing access to these sites. Either option would require the forwarding of all business line telephone calls to the HCSD dispatch center. This could result in some additional telephone company expenses due to the different telephone exchanges involved versus the current situation where both facilities are located in the same exchange.

Amherst Fire – Necessary Communication Upgrades

Changing the primary dispatch center from MACC Base to another entity would require the entering of our dispatch protocols into the new agency's Computer Aided Dispatch software system, notifying area fire departments of changes in dispatch center phone numbers and radio frequencies, and determining costs of either phone lines to a new transmit antenna, or hardware costs for radio links with the new dispatch center.

Amherst EMS – Necessary Communication Upgrades

To change the primary dispatch provider for the Amherst EMS department from MACC to any of the above listed agencies, would require some minimal equipment changes and possible reprogramming of existing equipment. At a minimum, the existing telephone circuit lines connecting Amherst EMS to MACC would be terminated, and replaced by similar lines connecting Amherst EMS to the selected agency. The cost for such lines is estimated to be more expensive due to the increased distance, however this should not be a major increase. Such an arrangement would provide the same radio coverage as would utilizing the Amherst EMS/Police transmitter/antenna. To improve the coverage, as well as eliminate recurring telephone line costs, the other option is to utilize the selected agencies existing transmitter sites (if available) connected via radio links to Amherst EMS. This would be a substantial one-time shared cost with Amherst Fire that would solve coverage issues for the length of the agreement between Amherst EMS/Fire and the selected agency.

Non-equipment changes would include the following data entry protocols:

Dispatch & Response Criteria

- Amherst & Mont Vernon Street Demographics
- Incident Response Criteria (ALS intercepts)
- Resource Hospital Coordination
- ICS Coordination training
- Mutual Aid Coordination
- Redundancy Communications

Amherst DPW – Necessary Communication Upgrades

The Sheriff stated in his presentation that he would move highway to high band and transmit off Pack Monadnock. Upgrades would include:

- Licensing, transmitter, and antenna on Pack Monadnock
- Phone or cross band RF link from his dispatch center to the antenna site on Pack Monadnock (Sheriff does the latter for Mason).
- Training in whatever standard protocols they use

DPW would continue to maintain a radio, antenna, and license at the Amherst Police Department and Public Works. This change would require us to publicize to all residents who now call MACC Base to the Sheriff's 800 number. The direct lines from Highway could be programmed to call forward after normal business hours (this has a minimal fee to the phone company).

<u>Detailed Pros and Cons of Hillsborough County</u> <u>Dispatch</u>

Pros

- 1. Existing operation
- 2. Lack of direct liability
- 3. No additional management required by Town
- 4. Redundancy plan in existence (at least for existing towns)
- 5. Ability to dispatch all town services
- 6. Upgrading their Comm. Center
- 7. New Comm. Center will be self-reliant
- 8. Reasonable cost estimates based on other options comparisons
- 9. CAD software is industry standard

- 10. Little turnover w/FT personnel
- 11. If Amherst joins there would be 2 dispatchers on duty 24/7
- 12. A local community (Bedford) is their backup
- 13. Dispatchers have Association of Public-Safety Communications Officials (APCO) & Powerphone certification
- 14. Willing to move public works to high band.
- 15. Currently dispatching public works for several small communities
- 16. Have the ability to assist in writing grants
- 17. Their radio personnel will assist in equipment repairs
- 18. Experienced Public Safety Dispatchers
- 19. Local Service
- 20. Willingness to grow and expand services
- 21. Possible backup option for Amherst

Cons

- 1. Unknown level of service/current reputation is not favorable²⁵
- 2. Lack of control in hiring, training, discipline, and policy making
- Inefficient use of manpower/inability to accomplish other tasks with personnel
- 4. Lack of extensive experience with fire and EMS
- Recommended major infrastructure improvements would not benefit Town if contract with HCSD ended
- 6. Highly political process for funding/budgeting
- 7. Addition of Amherst would have a major impact on the existing operation
- Considerable distance between center and Amherst/low level of direct interaction - 30 minutes away
- 9. Not under local control/No direct representation

²⁵ Research showed they sometimes have difficulty with the details (from another town department they dispatch for).

- 10. Amherst has to provide/ensure FCC licensing for them to dispatch

 Amherst
- 11. Does not dispatch any neighboring departments
- 12. Have to develop antenna site(s)/radio links in Amherst
- 13. Currently operating with a limited staff
- 14. Separation of departments from one central dispatch (If DPW/Police option is the option chosen)
- 15. Cost of dedicated phone lines or satellite links.
- 16. The presentation showed there was no direct process for redress.
- 17. Limited Flexibility for local procedures
- 18. Limited Customer Service "Big Picture"
- 19. Limited mutual aid interoperability for EMS, Fire and DPW
- 20. Poor emergency recall plan
- 21. No Quality Assurance Plan



Sub-Option #1: Derry Fire: Fire & EMS only

Option Summary

The Derry Fire Department Emergency communication center was formed in 1982 with the advent of full-time professional dispatching personnel. The system has been improved consistently since that time with updated communication systems, integrated fire and emergency medical services dispatching, as well as radio and hardwired municipal alarm system monitoring. The system is staffed 24 hours a day seven days a week with a staffing of 5 full-time dispatch personnel, 2 per-diem dispatch personnel, as well as several firefighters and paramedics that have been certified to perform dispatching duties on an as needed basis. The Derry Fire Department is in the process of reorganization that will enhance the current communication center with additional personnel including a full time Director of Technology and Communications who will manage the information technology component of the system.

All full-time personnel are certified by the International Municipal Signal Association to the basic level as emergency communication specialists. This certification is in compliance with the National Fire Protection Association Standard 1221. In 2004 all dispatchers will be attending the advanced certification course offered by IMSA. The communication center is supervised by a command Battalion Chief who is responsible for the day to day operations of the center.

The communication center is currently in the process of undergoing a major \$500,000.00 renovation with the addition of state of the art software, hardware, digital recording devices, and redundant dispatching consoles.

System Components

The communication center currently provides emergency dispatching services to the communities of Auburn, Chester, Derry, East Derry, Hampstead, and Windham NH. It also provides dispatching and alpha paging services to the 16 communities that comprise the Southeastern New Hampshire Hazardous

Materials Mutual Aid District. Alarm monitoring services are also provided on a 24/7 basis.

Currently fees to our customers are undergoing review regarding written agreements that will base the dispatch costs on two factors – population of community in relation to the total population the communication center serves and the number of dispatch calls in relation to the total number of emergency dispatches annually. System statistics for the past twelve months reveal the number of emergency responses dispatched to be in excess of 7,000. The system has experienced an average annual increase in the number of responses at 4 percent. The approximate total of population served is 100,000.

Annual Estimated Cost

The estimated annual cost is projected in the chart below, but for FY 05, the Town of Amherst would pay **\$37,085 per year** for dispatching services for the Fire and EMS Departments.

EQUALIZED DISPATCH BUDGET

Based on 50/50 breakdown between the population served and number of incidents dispatched to

Based on proportion of total population (50%) and total number of dispatches (50%) The numbers used for this formula are those used a for the calendar year - 2003

Anticipated Dispatch Budgets 4% annual increase

	Current	FY 04	FY 05	FY 06	FY 07
Derry Fire		\$ 76,852	\$ 79,926.08	\$ 83,123.12	\$ 86,448.05
Derry Ambulance		\$ 113,806	\$ 118,358.24	\$ 123,092.57	\$ 128,016.27
East Derry Fire Department		\$ 28,890	\$ 30,045.60	\$ 31,247.42	\$ 32,497.32
Auburn Fire Department		\$ 17,298	\$ 17,989.92	\$ 18,709.52	\$ 19,457.90
Chester Fire Department		\$ 12,313	\$ 12,805.52	\$ 13,317.74	\$ 13,850.45
Hampstead Fire Department		\$ 31,928	\$ 33,205.12	\$ 34,533.32	\$ 35,914.66
Windham Fire Department		\$ 53,512	\$ 55,652.48	\$ 57,878.58	\$ 60,193.72
Amherst			\$ 37,085.30	\$ 38,568.71	\$ 40,111.46
Total		\$ 334,599	\$ 385,068.26	\$ 400,470.99	\$ 416,489.83

Derry Fire FY 04 Budget

Derry Fire Dispatch Budget 2004

	Derry Fire Dispatch Budget 2004					
Acct #	Account Description	FY 04 Department Recommended				
	PERSONNEL SERVICES					
	Category 100					
110	Permanent Wages- Full Time	169,627				
120	Temporary Wages - Part-time	13,060				
130	Elected Compensation	10,000				
140	Overtime	15,000				
200	Employee Benefits	98,972				
	TOTAL PERSONNEL SERVICES	296,659				
	OPERATIONS & MAINTENANCE Category 490					
292	Training & Conferences	3,500				
293	Uniforms	3,000				
342	Information Technology	3,795				
390 410	Other Professional Services	5,270				
410	Electricity HVAC	3,603 1,724				
430	Contracted Repairs & Maintenance	15,150				
620	Office	250				
700	Capital less than \$10,000 TOTAL O&M	4,300 40,592				
	CAPITAL OUTLAY	.,				
	Category 825					
740	Machinery & Equipment	310,993				
	TOTAL CAPITAL OUTLAY	310,993				
	TOTAL DEPARTMENT EXPENSE	648,244				
	REVENUE					
023	Revenue from other governments	45,000				
	TOTAL DEPARTMENT REVENUE	45,000				
ļ						

Department Needs to Facilitate Change to Derry Fire

Amherst Fire – Necessary Communication Upgrades

Changing the primary dispatch center from MACC Base to another entity would require the entering of our dispatch protocols into the new agency's Computer Aided Dispatch software system, notifying area fire departments of changes in dispatch center phone numbers and radio frequencies, and determining costs of either phone lines to a new transmit antenna, or hardware costs for radio links with the new dispatch center.

Amherst EMS – Necessary Communication Upgrades

To change the primary dispatch provider for the Amherst EMS department from MACC to any of the above listed agencies, would require some minimal equipment changes and possible reprogramming of existing equipment. At a minimum, the existing telephone circuit lines connecting Amherst EMS to MACC would be terminated, and replaced by similar lines connecting Amherst EMS to the selected agency. The cost for such lines is estimated to be more expensive due to the increased distance, however this should not be a major increase. Such an arrangement would provide the same radio coverage as would utilizing the Amherst EMS/Police transmitter/antenna. To improve the coverage, as well as eliminate recurring telephone line costs, the other option is to utilize the selected agencies existing transmitter sites (if available) connected via radio links to Amherst EMS. This would be a substantial one-time shared cost with Amherst Fire that would solve coverage issues for the length of the agreement between Amherst EMS/Fire and the selected agency.

Non-equipment changes would include the following data entry protocols:

- Dispatch & Response Criteria
- Amherst & Mont Vernon Street Demographics
- Incident Response Criteria (ALS intercepts)
- Resource Hospital Coordination
- ICS Coordination training
- Mutual Aid Coordination
- Redundancy Communications

Detailed Pros and Cons of Derry Fire: Fire & EMS Only

Pros

- 1. Current system works well
- Experienced Public Safety Dispatchers
- 3. High accuracy rate in dispatching
- 4. Price
- Good Customer Service
- 6. Good expansion plan
- Good understanding of EMS/Fire Needs
- 8. Good quality assurance plan
- 9. Willingness to customize
- 10.\$500,000 Comm. Center upgrade in process
- 11. Fire/EMS CAD system (Red Alert)
- 12. Upgrading digital technology
- 13. Able to use Mobile Data Terminals (MDTs)
- 14. RF Knox Box key release
- 15. Provide each community an annual report, chart/graph number of responses, times of responses
- 16. Chief Officer meetings on a quarterly basis
- 17. Dispatchers trained to NFPA 1221 standards
- 18. In 2004 they plan to have all Dispatchers attend advanced certification course by IMSA
- 19. F/T Dispatchers certified to IMSA basic level emergency communication specialists
- 20. F/T Dispatchers Level 2 Firefighter certification
- 21. Dispatchers have monthly mandatory training
- 22. Several Derry Fire personnel trained to be backup if needed

- 23. All communities using the dispatch center use the same common terminology and have the same "mayday" protocol
- 24. Provide alarm monitoring
- 25. Daily updates to contracted communities on issues that may impact the community
- 26. Email of incident times/reports to the community
- 27. Provide a Dispatcher at the scene of large/prolonged incidents
- 28. Municipal Fire/EMS Department

Cons

- 1. 30 minutes away/ Non-local service
- 2. Not under local control
- 3. Does not provide Police or DPW dispatch, Requires Fire and EMS to be Separate from Police/DPW
- Amherst has to provide/ensure FCC licensing for Derry to dispatch
 Amherst
- Does not dispatch any neighboring departments, Poor mutual aid interoperability
- 6. Have to develop antenna site(s)/radio links in Amherst
- 7. Too elaborate reporting for our size town
- 8. Infrastructure upgrades needed





Sub-Option #2: Southwestern New Hampshire District Fire Mutual Aid (KMA): Fire & EMS only

Option Summary

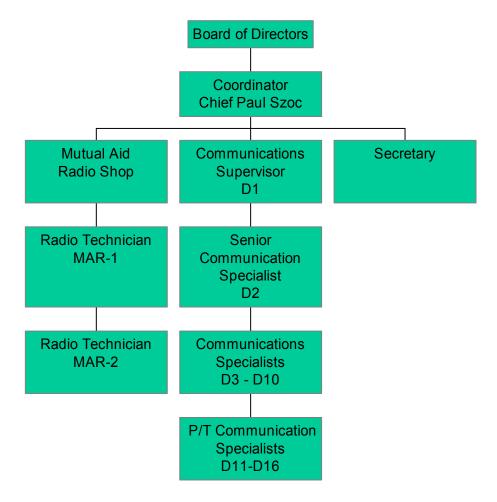
Southwestern New Hampshire District Fire Mutual Aid (KMA) was organized as a Fire Dispatch Center in1958 -District Fire Mutual Aid Systems under RSA 154:30. They currently provide alarm service, Police and EMS dispatch, group purchase of equipment as well as training for Fire and EMS.

KMA is a consolidated emergency dispatch center with Fire, EMS, Emergency Management consisting of 16 Communication Specialists (10 full-time, 6 part-time). Nationally a dispatcher burns out in 3 years, but at FMA has an average length of service of 13 years with combined years of service of 222 years. KMA dispatchers have knowledge of the dispatch area, available resources, knowledge of equipment and knowledge of Town's needs.

At KMA 89 percent of the dispatchers have worked in the Fire or EMS field and are familiar with procedures, protocols, and terminology.

KMA is organized with a board of Director and overseen by a full-time chief. See organization chart below:

Southwestern NH District Fire Mutual Aid System



KMA currently dispatches for 78 Fire Departments, 49 in New Hampshire, 27 in Vermont, and 2 in Massachusetts. They also dispatch for 18 EMS Agencies, 13 in New Hampshire and 5 in Vermont.

Annual Estimated Cost

The assessment from Southwest Fire Mutual Aid for 2004 would be **\$64,372**.

Department Needs to Facilitate Change to KMA

Amherst Fire – Necessary Communication Upgrades

Changing the primary dispatch center from MACC Base to another entity would require the entering of our dispatch protocols into the new agency's Computer Aided Dispatch software system, notifying area fire departments of changes in dispatch center phone numbers and radio frequencies, and determining costs of either phone lines to a new transmit antenna, or hardware costs for radio links with the new dispatch center.

Amherst EMS – Necessary Communication Upgrades

To change the primary dispatch provider for the Amherst EMS department from MACC to any of the above listed agencies, would require some minimal equipment changes and possible reprogramming of existing equipment. At a minimum, the existing telephone circuit lines connecting Amherst EMS to MACC would be terminated, and replaced by similar lines connecting Amherst EMS to the selected agency. The cost for such lines is estimated to be more expensive due to the increased distance, however this should not be a major increase. Such an arrangement would provide the same radio coverage as would utilizing the Amherst EMS/Police transmitter/antenna. To improve the coverage, as well as eliminate recurring telephone line costs, the other option is to utilize the selected agencies existing transmitter sites (if available) connected via radio links to Amherst EMS. This would be a substantial one-time shared cost with Amherst Fire that would solve coverage issues for the length of the agreement between Amherst EMS/Fire and the selected agency.

Non-equipment changes would include the following data entry protocols:

- Dispatch & Response Criteria
- Amherst & Mont Vernon Street Demographics
- Incident Response Criteria (ALS intercepts)
- Resource Hospital Coordination
- ICS Coordination training
- Mutual Aid Coordination
- Redundancy Communications

<u>Detailed Pros and Cons of Southwestern New</u> <u>Hampshire District Fire Mutual Aid (KMA): Fire & EMS</u> <u>only</u>

Pros

- 1. Large infrastructure
- 2. Repair personnel part of the organization
- 3. Low turn over of personnel
- 4. Minimum of 2 Dispatchers on at a time
- 5. Large customer base
- 6. UL listed agency
- 7. Provide alarm monitoring
- 8. Large resource pool
- 9. Provide a small mobile command center as needed
- 10. Use their frequencies, no further licensing needed on our part
- 11. Dispatchers trained to Association of Public-Safety Communications
 Officials (APCO) certification
- 12. Respected in the industry as a leader

Cons

- 1. Approx. 1 hour away
- 2. Not under local control
- 3. Does not provide Police or DPW dispatch
- 4. Does not dispatch any neighboring departments
- 5. 1 main dispatch frequency for 60+ communities
- 6. Does not provide computerized times/dispatch info
- 7. Have to develop antenna site(s)/radio links in Amherst
- No direct representation unless one of our members is on the Board of Directors

Summary of other Community Dispatching

A summary of different communities and how they dispatch appears below:

Town	Population	Type of Dispatch	Cost	Additional Comments
Windham	13750	Police In House Fire, EMS Contracted with Derry	\$310,000.00 \$ 20,000.00	Split recently due to losing senior dispatchers and this is seen as a temp measure. They are happy with Derry, however are evaluating whether or not it should come back under one roof for better control.
Goffstown	17000	Fire, EMS, Police In House Also Dispatch Weare and New Boston	?	Two dispatchers on days and evenings, one dispatcher over night
Plaistow	8000	Fire, Police, EMS, DPW Another Town pays \$25,000 to Plaistow (recently updated equipment for \$160,000)	\$175,000.00 \$ (25,000.00)	
New London	4200	Fire, Police, EMS 8 other Towns pay \$80,000 (Similar total call volume to Amherst) 7500 Police; 1200 Fire/EMS	\$243,000.00 \$ (80,000.00)	
Bow	8200	Policy Only – 5 Towns Bow, Pembroke, Dunbarton, Allenstown and Epsom Fire/EMS is handled separately	\$304,860.00 \$ 58,000.00	Fire and EMS
Raymond	10000	Police, Fire, Ambulance (separate), DPW Fremont Fire and Rescue (20 years doings its own dispatch)	\$393,077.00 \$ (5,000.00)	Payment from Fremont

Town	Donulation	Type of Dianatah	Cost	Additional Comments
Town Peterborough	Population 6000	Type of Dispatch Police	Cost \$ 12,264.00	Additional Comments The town dispatches inhouse for 16 hours Mon - Friday. They pay Hillsborough County (Sheriff's Office) this sum for the remaining 8 hours per day,
		Fire	\$ 34,000.00	weekends and holidays. KMA out of Keene
Stratham	7000	Contracted to Newmarket for all Departments	\$ 48,200.00	Police department is approximately 9 officers
Newmarket	Newmarket 8268 Police, Fire, EMS, \$200,000 DPW for Newmarket, Stratham, and Newfields. Fire only for Nottingham.		\$200,000 est	Mix of full time and permanent part time dispatchers, typically two on evenings. In existence for app. 30
		ioi iiotanigham.	\$(60,000) est	years. Payment from other communities
Hollis	8200	Police, Fire, EMS, DPW for Hollis and Brookline Population for both Towns combined is app. 13, 500.	\$277,665.00	Administered by Board made up of each service Department head who meet monthly. Dispatch Supervisor works days, with additional dispatcher, one dispatcher on all other shifts.
Merrimack	27000	Police, Fire, EMS, no DPW	\$473,061.00	Fire had separate dispatch until 1990 when they joined with PD. DPW handles inhouse during work day and calls some one in during storms. Typically have 2 dispatchers on except for midnights. Total of 8 full time employees.
Bedford	18274	Police, Fire/EMS (one dept.)	\$298,144.00	Currently employ 7 full time dispatchers (including one supervisor).

Department Head Recommendations

Each Department Head was tasked with ranking each option and the reasons behind each option. This assignment was done independently, and the results were not shared until each assignment was complete.

Final Conclusion and Recommendations

The Department Heads are unanimous in their final conclusion that Amherst should move forward with in-house 24/7 dispatching services as outlined earlier in this report. This was not an easy decision. After review of the options available, it became clear that for interoperability and more direct control, the in house option presents the best opportunity to meet each department's needs. In addition, this option allows the Town to avoid the political issues that arise in trying the meet the needs of not only a multi-agency, but also multi-jurisdictional operation.

Some of the options, such as Derry Fire or KMA would present a high level of service for the Fire and EMS department, but at the cost of breaking up our dispatching services into multi-agencies, which may have been the mindset in the past, but on both the New Hampshire and the National level, entities are beginning to look at complete dispatching services, due to the greater ability to deal with interoperability, and less potential problems and conflicts. Most emergency events require all public safety agencies to respond, and the larger the incident, the greater the need for interoperability with them, and the other departments such as Public Works as well as the Administration of the Town.

With the time available, and the resources already committed by the Town, moving forward with a comprehensive emergency communications center would require the cooperative effort of all departments, the Town Administrator and the Board of Selectmen. This option would not require an additional appropriation to make it a reality. Developing a Town of Amherst emergency communication center should result in a greater level of service for the Town for the same dollars already appropriated, or less.

The complete memos from each Department Head appear in the Appendix, but excerpts appear below:

Fire Department Dispatching Recommendations

Note: This is ranked with the consideration of Amherst Fire only.

1. Derry Fire

- a) They are on the cutting edge of Fire/EMS dispatching in the area
- They can support MDT and radio controlled Knox box key release for a high level of security to the Community
- c) Fire/EMS dispatching Fire/EMS-their total focus is on what we do
- d) They can provide a person to come to the fireground to support the Incident Commander during extended incidents
- e) Excellent QA/QI system in place
- f) Highly trained and experienced dispatchers
- g) Very good organizational structure
- h) Willing to work on radio coverage solutions for Amherst
- i) Good system in place to address concerns/thoughts

2. Amherst Dispatch

- a) We structure the system to fit our needs
- b) We have total control
- c) Instant resolution to issues
- d) We control employee development
- e) Best intercommunity interoperability situation
- f) Provide office support outside of dispatching during slow periods
- g) Gives a stronger sense of a Team atmosphere
- h) Better sense of community service
- i) Better control during special/major events, i.e. 4th of July activities
- j) Ability to control who shares our dispatching with us

3. SWNHFMA

- a) Fire/EMS dispatching Fire/EMS-their total focus is on what we do
- b) They can provide a person to come to the fireground to support the Incident Commander during extended incidents
- c) Highly trained and experienced dispatchers
- d) Willing to work on radio coverage solutions for Amherst
- e) We are already an Associate member of their organization
- f) Major infrastructure in place

4. MACC Base

- a) Limited expansion of current infrastructure needed
- b) Same radio frequency with towns to the west

*At this time I cannot recommend going with the Sheriffs Department due to their lack of experience with active Fire/EMS dispatching combined with their lack of knowledge and operation in and around Amherst.

Final Ranking Note:

THIS LIST WAS DEVELOPED WITH A FOCUS ON AMHERST FIRE ALONE, OPERATING IN A VACUUM. GIVEN THAT WE DO NOT OPERATE IN A VACUUM, AS THE FIRE CHIEF MY RECOMMENDATION AT THIS TIME IS THAT THE TOWN OF AMHERST PERFORMS ITS OWN DISPATCHING. THIS RECOMMENDATION IS BASED ON THE RESEARCH CONDUCTED AND THE REASONS GIVEN ABOVE UNDER AMHERST.

EMS Department Dispatching Recommendations

Pursuant to our conversations on Wednesday and after extensive analysis of the proposed future dispatch options for Amherst EMS, I have concluded that there are only two valid options.

Due to an aging EMS Communications System, combined with the Town of Amherst's continued population and development growth, has resulted in an increase number of emergency calls per year, crowded emergency medical frequencies, and a fragmented emergency medical communications system (MACC Base) that lacks professionalism and coordination regionally and/or statewide.

Improved public safety communications has become an issue of national concern. Improving communications systems has been identified as one of fourteen categories proposed for continued development by the National Highway Traffic Safety Administration's "EMS Agenda for the Future".

One significant issue facing EMS and public safety providers in the town is the lack of interagency operability. Our public safety providers lack the ability to communicate effectively with each other on both a state and local level. Currently we operate on multiple frequency bands allocated for public safety use. However, radio users in one band cannot talk to users operating on a different band. As a result, communications among Amherst EMS, Police, Fire and DPW is severely restricted.

1. Town of Amherst Dispatch

Therefore, my Number One Recommendation is for the Town of Amherst to pursue the development of our own cost efficient in-house public safety communications center, which can be tailored to meet the specific interagency interoperability needs of all town public safety departments. Additionally, an in-house communications center may become the source of future revenue via regional expansion.

2. MACC Base

My Number Two Recommendation is for the Town of Amherst to stay with an overpriced MACC Base and work to resolve ongoing professionalism and interoperability concerns.

In conclusion, I cannot support any communications plan that incorporates the splitting of public safety departments to multiple dispatch centers, due to the potential life safety delays in interagency communications. The use of Derry Fire, Keene and/or the Sheriff's Department as a cost savings option, will not benefit the needs of Amherst EMS and actually may pose an increased liability risk.

Police Department Dispatching Recommendations

At your request I am forwarding to you a list of the available dispatch options for the Amherst Police Department. This list is ranked, based on my professional opinion, from the best option for the Amherst Police Department to the least advantageous. I have also included a very brief description as to the basis for this opinion. I would like to state up-front that any decision made is neither easy, nor without some unknowns or negatives. Unfortunately, maintaining the status quo, though easier, is not necessarily right. Resistance to change is not a reason to forgo striving to provide superior service to the citizens.

1. Amherst Emergency Communications Center

This provides local control and options while addressing our interoperability issues. This appears to be the best solution to providing the level of service the Town deserves, however it was a matter of economics that prevented it from being seriously considered in the past. I believe the list of pros versus cons speak for themselves in justifying this decision

2. Milford Area Communications Center

This service has been adequate at best and was viewed as the most economical option for many years. The organizational/management/political issues that have hindered the growth and development of this center into a professional operation show no sign of improvement, and may in fact be worsening. The economic situation just makes the decision to leave timely.

3. Hillsborough County Sheriffs Department (dispatching for all Amherst services)

This option would provide for interoperability, but with too many unknowns and variables. This center does not have a positive image with many of their current users, all of which are dramatically smaller than Amherst. In addition, their level of experience with Fire/EMS is minimal, and again not comparable to the call volume of Amherst. This would possibly be a risk worth taking, based on cost, if the subject matter was not emergency communications.

Other Option Consideration

All other options whereby Amherst services are divided between services and are not considered viable options based on the degradation of the interoperability function from its current level.

Thank you for considering my opinion on this critical topic. In addition to my considerable professional experience in this field, I feel my twenty-eight years of exposure to many of the local issues that have brought us to this day of decision should be weighed accordingly.

Public Works Department Dispatching Recommendations

1. Amherst Dispatch

- a) The "pros" far out way the "cons".
- b) The team of Department Heads work well together which is a tremendous asset in the overall outcome.
- c) The commitment reduces overall liability to the town and increased our immediate opportunity to manage change.
- d) While we want to move Public Works to high band (and it meets interoperability) it can be phased on over time.

2. MACC Base

- a) This is a reluctant second choice only because the service is poor and only as of eight days ago (from the writing of this report) are towns and department heads being asked for input on what the problems are.
- b) We know what the system is and despite the failures, we know what we've got.
- c) My existing frequency can be accommodated and residents know the phone number.

3. Hillsborough County Sheriff's Department

- a) It was an extremely poor presentation.
- b) I would have to make antenna and licensing conversions immediately.
- c) We might or might not be together with the other town departments and it could affect interoperability.

Addressing Interoperability Issues

Interoperability Frequencies for Emergency Use

- Two radio frequencies have been identified for use by the Town of Amherst that are nationwide interoperability frequencies. These frequencies are open to government agencies to use, no local licenses required. Our Departments can go on any of the frequencies and use them for interoperability purposes, however not regular day to day use, unless of course it is for different departments to talk to each other.
- o 155.7525 TAC 1
- o 158.7375 TAC 2

Federal Hill Site for Coverage

The communications coordinator, for NH DRED, Paul Leary, has been contacted about allowing Amherst to put a transmit site on the Federal Hill Fire Tower. This is the current site that the Amherst Fire Department is dispatched from on the low band fire frequency. It has close to complete coverage of the Town of Amherst, and the propagation study done by the consultants verify that the site will provide excellent coverage for Amherst on high band. Paul Leary has advised us that to get permission from the State of NH, we need to have an intermodulation study done to confirm that our transmit antenna(s) will not interfere with any other transmit antennas there. It should not be an issue because all that is there is MACC Base low band and UHF, and US Cellular. Beltronics can do the study for us. Once that is done we fill out State provided forms and it takes about 75 days to get official approval from the State. He advised that if there is not going to be any interference from our frequency, then it should not be an issue to get the approval.²⁶

In December 1929, reporting on the reopening of the station, New Hampshire Forests reported that "Federal Hill in Milford began its service in 1911 with a platform built around a large pine about twenty feet up the tree". This station was used until 1918 when a 45 foot steel tower and two-room cab was put in service.

The cab was rebuilt and the tower raised 10 feet during the 1980's. The present tower is 75 feet high.

²⁶ Federal Hill, elevation 690 feet, located in the town of Milford, New Hampshire and run by the Division of Forests and Lands. Follow Federal Hill Road to a road just south of NH 101, then south on Ponemah Hill Road. Tower road (gated) is on the west about a mile from the junction and crosses private land. Distance along the road to the tower is less than a mile.

Federal Hill Site Information



• Permission is needed from US Cellular to tie into their generator for emergency power backup at Federal Hill if a transmitter is placed there. A local radio dealer has been contacted about this issue and they are familiar with who to contact at US Cellular to obtain permission.

Fire and EMS Shared Frequencies

- A Frequency Coordinator has been retained to assist the Town with identifying and securing additional high band frequencies. He has found a repeater VHF pair for Fire/EMS, the frequency pair is 151.220 base tx/159.390 rx, 159.390 mobile tx/151.220 rx
- The Frequency Coordinator has found a high band frequency for DPW. It is 159.2475
- This frequency will be licensed for the DPW garage and the police station.

Fire and EMS Radios

Homeland Security Grant Program – Equipment Distribution

In July 2002, President George W. Bush approved the National Strategy for Homeland Security, a framework for a national effort to prevent and respond to acts of terrorism in the United States. This Strategy recognizes the vital role of state and local public safety agencies in providing security in America. In February of 2003, the President signed into law the Fiscal Year 2003 Omnibus Appropriations Act which provides state and local governments with funding that will enable greater preparations to occur in an effort to combat terrorism.

In the past, the U.S. Department of Justice-Office of Domestic Preparedness (ODP) has operated an equipment based grant program to assist states and units of local government in procuring equipment to prepare for the ramifications of disasters and acts of terrorism. In March of 2003, the U.S. Office of Homeland Security opened with the ODP becoming one of its entities. Under current rules, the ODP has expanded its programs for a greater range of preparedness activities including the purchase of terrorism incident prevention equipment and the conduct of exercises that focus on preventing terrorist acts. ODP is also providing training funds that will be used to provide appropriate training resources at the local and state level.

In April of 2003, Governor Craig Benson indicated that the NH Department of Safety would be the State Administrative Agency for the Homeland Security grant funds. The Department of Safety took this opportunity to work diligently with local first responders, public safety officials, and other local and state officials and agencies to prepare and protect our citizens.

This fall, the Department of Safety performed a survey of the local Fire and EMS service providers to determine their needs. This detailed survey resulted in defining the number of mobile and portable radios currently used by the local Fire and EMS communities. Approximately 92% of potentially eligible units of local government responded to this crucial survey.

At the direction of the First Responder Radio Interoperability Committee, an equipment order was placed to acquire an initial supply of Motorola Astro Project 25 (APCO-25) mobile radios. This order was based upon a State bid contract in place. It is expected that installation could take up to 18 months to complete all 3000 pieces of local Fire and EMS statewide apparatus.

The Town of Amherst, NH installation phase of this project will begin in accordance with the following:

- The three pages of the survey must be completed and returned by your department, providing the Department of Safety with pertinent information that will be provided to the Motorola authorized dealer who will perform the installation.
- Installation will be performed on a first come, first served basis, based on the date the survey was received by the NH Dept of Safety.
- If your department is receiving a new piece of equipment during the
 installation time period, you may notify the Department of Safety in writing
 and the new equipment will be placed at the top of the priority list for
 installation. This notification will all help alleviate local departments
 installing "old" or incompatible equipment.
- The intent of this equipment is to be installed in municipally owned vehicles in service. This equipment is not intended for POV's.
- All equipment allocated to your department will have the title of ownership transferred to your agency once all equipment has been installed statewide.
- Your current radios will not become obsolete with this project.

The Town of Amherst Fire & EMS will receive the following initial distribution of Radio's:

Amherst Fire Department Vehicles (10)
Amherst EMS Department Vehicles (4)

- A radio installer has started installing the new mobile radios in the fire apparatus on March 9, 2004. These are the State provided radios that were obtained through an interoperability grant that was awarded to the State of NH.
- The Town of Amherst Department of EMS has received approval from the State of NH to receive four Digital Motorola Astro mobile vehicle radios at no charge. A contracted radio installer will begin installing the new mobile radios in the EMS vehicle following the installation of the similarly approved Amherst Fire radios, which began on March 9, 2004. These are the State provided radios that were obtained through an interoperability grant that was awarded to the State of NH.

Fire Radio Warrant Article Upgrades

As shown in the following spreadsheet, of the remaining money in the Fire Department Communication Warrant Article²⁷, there is enough left to complete the departmental change to VHF to be consistent with the Police and EMS departments, as well as the amount needed to address interoperability with additional coverage for the Federal Hill site.

Needed to Complete Change To VHF			
Portable Radios/Accessories	\$33,930.00		
South Station Base Station & Antenna	\$2,000.00		
Central Station Base Station & Antenna	\$2,000.00		
Labor to install base stations/antennas	\$1,800.00		
Total Needed to Complete Change	\$39,730.00		
Needed to Address Interoperability			
FCC Licensing	\$3,000.00		
Labor/evaluation of existing equipment, etc	\$3,200.00		
Federal Hill Fire/EMS Repeater	\$7,000.00		
Federal Hill Fire/EMS Repeater Cabinet	\$2,000.00		
Total Interoperability	\$15,200.00		
Estimated Total Expenses	\$55,630.00		
Estimated Available After Upgrades	\$315.91		

²⁷ As stated in the beginning of this report the Police and EMS departments are on the same frequency band (VHF), but Fire and DPW departments are on a much lower band that prevents all agencies from talking to each other. A few years ago, there was a plan in place to move the Fire Department to a much higher frequency band (UHF) that would have created the same interoperability issues. This plan was put on hold, pending further study. The State is now replacing all of the radios for the Fire and EMS department in the VHF range and the remaining dollars can be used to upgrade the other Fire Department needs to allow for a consistent frequency range and better overall coverage.

Weblinks

Association of Public-Safety Communications Officials, International http://www.apcointl.org/

McKinsey Report: Increasing FDNY's Preparedness http://www.nyc.gov/html/fdny/html/mck report/toc.html

McKinsey Report: Improving NYPD Emergency Preparedness and Response, August 19, 2002.

http://www.nyc.gov/html/nypd/pdf/nypdemergency.pdf

Articles

Washington Business Journal

From the September 27, 2002 print edition

After 9/11 Agencies Trying to Get on Same Wavelength: James Ridgell

Words and terms such as "interoperability" and "Project 25" have been in the vocabulary of the public safety communications industry for some time now. However, after the Sept. 11 attacks and the attending communications breakdowns, the terms have taken on a new significance — and, in the case of interoperability, a new urgency.

Interoperability means the ability of radio equipment on different systems to communicate with each other. Project 25 refers to the process that developed standards for digital wireless communications interoperability.

A recent report commissioned by New York City shows that the inability of personnel from different organizations to communicate with one another cost the lives of dozens of first responders on Sept. 11.

The report states that New York police officers were able to hear warnings from a helicopter that the North Tower of the World Trade Center was glowing red, and most of the police officers exited the building safely — while dozens of firefighters, who could not hear these warnings, died when the tower collapsed.

The first responders at the Pentagon also experienced similar problems, because federal law enforcement personnel could not communicate with the local police officers and firefighters, which caused some confusion in the coordination of rescue efforts.

The communications breakdowns on Sept. 11 were not isolated incidents, but a symptom of a larger problem in achieving interoperability.

Interoperability doesn't just happen; it must be planned.

Historically, getting numerous agencies from different levels of government in the same area to work together on a communications interoperability plan can be a difficult task.

There can be many reasons for this, such as resistance to replacing and integrating an existing communications system with surrounding agencies or a lack of political control or simply a lack of funding to make the changes.

Sept. 11 taught us a painful lesson about our readiness, and the reasons for not having interoperability become lost in the drive for homeland security.

9/11 Workers on Right Wavelength BY Dibya Sarkar Feb. 04, 2002 http://www.fcw.com/geb/articles/2002/0204/web-pswn-02-04-02.asp "Command centers in control" [Government E-Business, Sept. 14, 2001]
A new report reveals that most local public safety agencies initially responding to the attack on the Pentagon Sept. 11 had little difficulty communicating with one another.

The report, "Answering the Call: Communications Lessons Learned from the Pentagon Attack," was released Feb. 1 by the Public Safety Wireless Network (PSWN) Program, a joint initiative sponsored by the Justice and Treasury departments. The program's goal is to help the public safety community improve wireless radio interoperability.

Interoperability has been a major focus among public safety organizations and governments for years, but has become a national focus following the Sept. 11 attacks. Many public officials have said first responders in many jurisdictions cannot communicate with one another because many operate on different radio frequencies.

During the Pentagon attack, 50 local, state and federal public safety agencies responded to the incident, resulting in about 900 radio users, the report said. Initial responders, led by those from Arlington County, Va., had no problem establishing communications at the scene due to "the high-level of regional coordination and agreements previously established," it said.

Robert Lee Jr., a PSWN program manager representing the Justice Department, said part of the success stemmed from the problems first responders had when Air Florida Flight 90 crashed into the 14th Street Bridge and into the Potomac River in 1982.

He said several public safety agencies, including the National Park Police, Washington, D.C., fire and police, Arlington County rescue units and authorities from then-Washington National Airport, were "dissatisfied with their ability to communicate" and set about making changes.

"Cooperation is the key," Lee said. "If you can't get people to sit down and talk with each other, they'll never come up with technological and procedural solutions to meet the challenge."

The report found that:

- * Regional planning and coordination efforts produced procedures for mutual-aid interoperability for local jurisdictions.
- * Local agencies regularly rehearse mass casualty incidents.
- * Agencies had early establishment of and strict adherence to a formal incident command system.
- * Responders found that their private land mobile radio systems were the most reliable form of communication.

However, the report noted that as state and federal agencies, which are considered secondary responders, increased their presence at the site, "no means of direct interoperability was immediately available" for them. It also said the level of interoperability necessary to support these secondary responders had not been documented.

Lee said the PSWN report, which contains a number of recommendations, should be used to see how communities and regions can increase their interoperability. "In the emergency services, stress is inevitable," he said. "It's really, really comforting to responding entities that they have plans and procedures to fall back on and they have appropriate equipment to meet the challenges. If we don't plan ahead of time . it makes it all the more frightening for responders and all the more confusing for the initial ones to help."

Emergency Communications Analysis Report

Appendix

Emergency Communications Analysis Report

Appendix: Consultants Report

COMMUNICATIONS

ANALYSIS

ASSOCIATES

A Telecommunications Consulting Firm

Objectives

The Town of Amherst recognized that it needed to solve its existing problems with interoperability of its radio communications between municipal organizations such as Police, Fire and EMS. Police and EMS are on high band, the Fire and Highway Departments are on low band. The difference in bands prohibits direct radio communications between Departments. The inability for inter department radio communications is a potential risk to all concerned.

A second issue that the Town identified was the need to develop a communications plan that would allow Amherst to continue to provide emergency services should the present dispatch center services provided by MACC Base for whatever reasons fail.

Existing Conditions

All E911 calls made in the State are first routed to the State of New Hampshire's E911Center in Concord and Laconia, NH. Concord transfers the call to the MACC Base. The MACC Base response depends on the time of day and the department.

All Fire, Police and EMS emergency calls are dispatched by the MACC Base, 24 hours a day seven days a week. The Fire Departments general business number is answered by an Auto Attendant that instructs callers to dial 911 if the caller is reporting an emergency.

The Police dispatch their own Officers between the hours of 8:00 am to 8:00 pm Monday through Friday and 8:00 am to 4:00 pm on Saturday and Sunday. MACC Base manually transfers calls during these periods to Amherst. Other than the above time periods, MACC Base dispatches the Police. The Police general business number 603-673-4900 is answered from 8:00 am to 8:00 pm weekdays and 8:00 am to 4:00 pm Saturday and Sunday by the Police and forwarded to MACC Base for coverage.

The emergency number 603-673-3131 is answered 24 hours a day, 7 days a week by MACC Base and treated the same as E911 calls described above for Police, Fire and EMS.

Advantages:

- The Town of Amherst does not need to maintain personnel to cover Fire and EMS dispatching. MACC Base also covers the Amherst Police Department for 12 hours of the day.
- Amherst would need to add an additional dispatch console for back up and peak volume.

Disadvantages:

- Amherst has reported that MACC Base does not have a predictable dispatch protocol. This inconsistency has caused some confusion on the part of the Amherst Department being dispatched.
- Amherst Fire, Police and EMS have reported an "an on the air attitude" by MACC Base dispatchers which can cause problems between the public it is supposed to service and the Amherst personnel dispatched.
- Amherst Departments dispatched by MACC Base also report that
 MACC Base often does not provide complete information.

Requirements to Establish an Amherst Dispatch Center

Based on our initial review of factors such as, equipment, E911 calling and space requirements, we believe it is feasible and practical for Amherst to develop its own dispatch center. To achieve this we have the following recommendations and suggestions:

Space

The present dispatch center located in the Police Department should continue and be expanded on. It offers the space needed, it has the security and some of the equipment needed to support a center is already in place. Also as a 24-hour occupied building, back up and support, if needed for whatever reason, is close by. Our review indicates that with a slight rearrangement of existing furniture such as filing cabinets, a second dispatch console can be placed on an existing table. The present location already has power and back up power and room for additional people if required. Over all it does not appear to need minimal, if any, renovation.

Dispatch Equipment

The recommended location in the Police Department has an existing Zetron console and E911 console. We recommend that a second Zetron Console and a new 8-channel recorder be installed. The second console and recorder along with an agreed length of message storage will be needed to provide backup and coverage as needed. Generator power back up exists at the Police Department building. In addition, a dedicated server with back up should also be considered for CAD and GIS software.

E911

The State of New Hampshire will need to be contacted to arrange for E911 calls to be transferred from Concord to Amherst instead of MACC Base.

In conclusion, given the existing coverage problems in the area, the upgrades to radio systems for Amherst outlined should be a consideration for whoever does dispatching for Amherst.

Personnel Requirements

To provide the additional coverage needed for Police, Fire and EMS, we suggest that a total of 5 to 6 trained Dispatchers will be needed. Three full time and two or three part time people who would work weekends, holidays and cover vacations, sick time, etc. All personnel must be highly trained and periodically reviewed. E911 and 3131 calling generate a volume of approximately 1300 calls annually, and 8,000 general business calls annually. This equates to approximately 3 to 4 emergency calls per day and 7 to 8 general business calls per hour or 56 to 64 general business calls per 8-hour day. One way to reduce the general business calls is to automate information either on the web or auto attendant response. As an example, dates and requirements for burning permits, snow emergencies, etc. Considerable time was spent reviewing the propagation studies you provided by Amherst NH.

Radios

After performing our own propagation studies based on the information provided by Southwestern New Hampshire District Fire Mutual Aid System (SWNHDFMA) who apparently ran these plots, we made the following findings.

We have some reservations as to how they were set up for display on the map. When we duplicate their maps, and set them up for display in a manner we feel is more correct, they have a different result, as an example.

SWNHDFMA used a receiver sensitivity of .9 uV/meter (notice the point 9). According to Motorola Specifications for the Minitor 2 pager, the sensitivity of the pager is 5 uV/meter with a Squelch opening sensitivity of 9 uV/meter (not .9). This difference results in less of a coverage area.

In our opinion, to provide the kind of coverage and interoperability the Town will need to develop its own back up. It should have two repeater facilities. The exact location in the Town is still not clear, but what appear to be good options are to be Federal Hill and either the Police Station or the South Fire Station. It is important to have backup and if the Town chose a single point, a simple power failure combined with the failure of a generator on site to start would cripple the Town's communications.

The town is looking at a minimum of three channels for Police, Fire/EMS, Recreation, and Public Works. Recreation and Public Works for economic reasons currently share employees and vehicle. This totals to 6 repeaters assuming 2 locations. A preliminary budgetary cost is \$10,000.00 to 12,000.00 per repeater. For this money, Amherst can purchase a base station, feed lines, tower mounts and antennas. By utilizing the Police Station as one of the repeater locations, the repeaters can be hard wired to the console where as the remote repeaters on Federal Hill for example needs

to be controlled by either leased phone lines or radio links. This price could be higher if the town chooses to also install an interoperability channel. This does not included installation costs. By utilizing the Police Station as one of the repeater locations, the repeaters can be hard wired to the console by either leased phone lines or repeater links. This price could be higher if the town chooses to install a fourth interoperability channel, (an additional 20,000 to \$24,000.00 for two repeaters). A second Zetron 4010 console estimated cost is \$11,000.00, plus an estimated \$3,000.00 to upgrade the existing console for software to support additional channels.

A conservative budgetary cost for the repeater hardware for voice communications for the Town of Amherst would be approximately \$125,000 to \$150,000. If a fourth channel were added then the cost would be \$145,000.00 to \$174,000.00 dollars including installation and licensing. A lower cost alternative is by using mobile radios as repeaters. *This alternative is not recommended.* Mobiles should be used in a mobile environment only. They do not have the ratings or reliability of a good base station.

A third alternative that may reduce costs by 5% and the one we recommend is the use of combiners at the two repeater locations chosen, a combiner would allow the 3 users, Police, Fire\EMS and Public work to share one antenna and feed line. Another alternative is to locate pre-owned equipment, estimated savings of 15%-20%.

In addition the DPW would need to purchase 12 to 15 portable radios at an estimated \$1,000.00 per unit to allow for interoperability of all departments.

One area that we recommend is looked at immediately regards changes in FCC licenses as it relates to the addition or change of repeater sites.

The combiner also provides lots of filtering of adjacent channel interference and intermod protection.

<u>Budgetary Costs – Radio Communications</u>

Back Up Zetron Console	\$11,000 - \$12,000	
Upgrade to Existing Zetron Console	\$3,000 - \$4,000	
*Repeaters – Option A	\$125,000 - \$150,000	
*Repeaters – Option B	\$145,000 - \$174,000	
E911 Network Costs (no charge for re-routing		
E911 calls from Concord.		
DPW Radios (12-15 Units)	\$12,000 - \$15,000	
Eight Channel Recorder with Call Check	\$3,000 - \$3,500	
Option – Pre-Owned Equipment	?	

Option A 6 repeaters, Option B 8 repeaters

Emergency Communications Analysis Report

Appendix: Department Head Recommendations



TOWN OF AMHERST, NEW HAMPSHIRE FIRE DEPARTMENT

P.O. Box 1199, 177 Amherst Street Amherst, NH 03031 Phone (603) 673-1545 Fax (603) 672-3927 John DeSilva, Chief of Department

AMHERST FIRE DEPARTMENT

TO:

CARL WEBER, TOWN ADMINISTRATOR

FROM:

JOHN DESILVA, FIRE CHIEF

SUBJECT:

DISPATCH OPTION RANKINGS

DATE:

3/11/2004

CC:

Here are my recommendations for Amherst Fire. This is ranked with the consideration of Amherst Fire only.

1. Derry Fire

- a. They are on the cutting edge of Fire/EMS dispatching in the area
- b. They can support MDT and radio controlled Knox box key release for a high level of security to the Community
- c. Fire/EMS dispatching Fire/EMS-their total focus is on what we do
- d. They can provide a person to come to the fireground to support the Incident Commander during extended incidents
- e. Excellent QA/QI system in place
- f. Highly trained and experienced dispatchers
- g. Very good organizational structure
- h. Willing to work on radio coverage solutions for Amherst
- i. Good system in place to address concerns/thoughts

2. Amherst

- a. We structure the system to fit our needs
- b. We have total control
- c. Instant resolution to issues
- d. We control employee development
- e. Best intercommunity interoperability situation
- f. Provide office support outside of dispatching during slow periods
- g. Gives a stronger sense of a Team atmosphere
- h. Better sense of community service
- i. Better control during special/major events, i.e. 4th of July activities
- i. Ability to control who shares our dispatching with us

TOWN OF AMHERST, NEW HAMPSHIRE FIRE DEPARTMENT

P.O. Box 1199, 177 Amherst Street Amherst, NH 03031 Phone (603) 673-1545 Fax (603) 672-3927 John DeSilva, Chief of Department

3. SWNHFMA

- a. Fire/EMS dispatching Fire/EMS-their total focus is on what we do
- b. They can provide a person to come to the fireground to support the Incident Commander during extended incidents
- c. Highly trained and experienced dispatchers
- d. Willing to work on radio coverage solutions for Amherst
- e. We are already an Associate member of their organization
- f. Major infrastructure in place

4. MACC Base

- a. Limited expansion of current infrastructure needed
- b. Same radio frequency with towns to the west

*At this time I cannot recommend going with the Sheriffs Department due to their lack of experience with active Fire/EMS dispatching combined with their lack of knowledge and operation in and around Amherst.

NOTE: THIS LIST WAS DEVELOPED WITH A FOCUS ON <u>AMHERST FIRE</u> <u>ALONE, OPERATING IN A VACUUM</u>. GIVEN THAT WE DO NOT OPERATE IN A VACUUM, <u>MY RECOMMENDATION AT THIS TIME IS THAT THE</u> <u>TOWN OF AMHERST PERFORMS ITS OWN DISPATCHING</u>. THIS RECOMMENDATION IS BASED ON THE RESEARCH CONDUCTED AND THE REASONS GIVEN ABOVE UNDER AMHERST.

Amherst Police Department

Memorandum

To: Carl E. Weber, Town Administrator

From: Gary D. MacGuire, Chief of Police

CC:

Date: March 4, 2004

Re: Dispatch Option Rankings

At your request I am forwarding to you a list of the available dispatch options for the Amherst Police Department. This list is ranked, based on my professional opinion, from the best option for the Amherst Police Department to the least advantageous. I have also included a very brief description as to the basis for this opinion. I would like to state up-front that any decision made is neither easy, nor without some unknowns or negatives. Unfortunately, maintaining the status quo, though easier, is not necessarily right. Resistance to change is not a reason to forgo striving to provide superior service to the citizens.

1. Amherst Emergency Communications Center

This provides local control and options while addressing our interoperability issues. This appears to be the best solution to providing the level of service the Town deserves, however it was a matter of economics that prevented it from being seriously considered in the past. I believe the list of pros versus cons speak for themselves in justifying this decision

Milford Area Communications Center

This service has been adequate at best and was viewed as the most economical option for many years. The organizational/management/political issues that have hindered the growth and development of this center into a professional operation show no sign of improvement, and may in fact be worsening. The economic situation just makes the decision to leave timely.

3. Hillsborough County Sheriffs Department (dispatching for all Amherst services)
 This option would provide for interoperability, but with too many unknowns and variables.
 This center does not have a positive image with many of their current users, all of which are dramatically smaller than Amherst. In addition, their level of experience with Fire/EMS is minimal, and again not comparable to the call volume of Amherst. This would possibly be a risk worth taking, based on cost, if the subject matter was not emergency communications.

All other options whereby Amherst services are divided between services
 These are not considered viable options based on the degradation of the interoperability function from its current level.

Thank you for considering my opinion on this critical topic. In addition to my considerable professional experience in this field, I feel my twenty-eight years of exposure to many of the local issues that have brought us to this day of decision should be weighed accordingly.

Should you require further clarification on this topic, please do not hesitate to contact me.



DEPARTMENT OF PUBLIC WORKS

22 Dodge Road Amherst, NH 03031 Tel. (603) 673-2317 Fax (603) 249-8857

bberry@amherstnh.gov

Memo

To:

Board of Selectmen

From:

Bruce W. Berry BwB

Subject:

Radio Communications

Communication Evaluations

MACC Base

- If the town stays with MACC Base:
 - We will need to purchase and maintain two radios for each vehicle, low band to talk to MACC Base and high band to work around town and interact with other Amherst departments.
 - 2. Means of documenting calls for service.
 - 3. System to call forward, after hour calls.

Hillsborough County Sheriff's Department

- The move to the Sheriff's Department requires.
 - 1. The Sheriff stated in his presentation that he would move highway to high band and transmit off Pack Manadnock.
 - 2. We would need;
 - a. licensing, transmitter, and antenna on Pack Monadnock
 - b. a phone or cross band RF link from his dispatch center to the antenna site on Pack Monadnock (Sheriff does the latter for Mason).
 - c. training in whatever standard protocols they use
 - 3. I would recommend we continue to maintain a radio, antenna, and license at the Amherst Police Department and Public Works.
 - 4. Retrain all residents who now call MACC Base to the Sheriff's 800 number. The direct lines from Highway could be programmed to call

forward after normal business hours (this has a minimal fee to the phone company).

Amherst Dispatch Center

- 1. For Public Works there is no immediate conversion, the existing in place equipment could be used until the departments "more prone to emergencies" are up and running (one year-two years).
- 2. After such time, or when deemed appropriate, we convert to a new "high band" frequency using the four ambulance radios and new or used purchased radios.

After careful review of the three communication options available to Public Works and participating in pro and con conversations with my fellow Department Heads I have come to the conclusion, a communications center run by the Town of Amherst is the best possible way to meet our short and long term needs and goals. Specific reasoning is enclosed in the "Communications Report".

I ask for your consideration and support in this most important matter.

Option Rating

First Choice

Amherst Dispatch

Second Choice

MACC Base

Third Choice

Hillsborough County Sheriff's Department

AMHERST EMS DEPARTMENT

P.O. BOX 126

175 AMHERST STREET 603/673-7030

AMHERST, NEW HAMPSHIRE 03031 FAX 603/673-3204



BRIAN GLEASON

Memorandum

To:

Carl Weber, Town Administrator

From:

Brian M. Gleason

Date:

3/11/2004

Re:

EMS Communication Opinion

Pursuant to our conversations on Wednesday and after extensive analysis of the proposed future dispatch options for Amherst EMS, I have concluded that there are only two valid options.

Due to an aging EMS Communications System, combined with the Town of Amherst's continued population and development growth, has resulted in an increase number of emergency calls per year, crowded emergency medical frequencies, and a fragmented emergency medical communications system (MACC BASE) that lacks professionalism and coordination regionally and/or statewide.

Improved public safety communications has become an issue of national concern. Improving communications systems has been identified as one of fourteen categories proposed for continued development by the National Highway Traffic Safety Administration's "EMS Agenda for the Future".

One significant issue facing EMS and public safety providers in the town is the lack of interagency operability. Our public safety providers lack the ability to communicate effectively with each other on both a state and local level. Currently we operate on multiple frequency bands allocated for public safety use. However, radio users in one band cannot talk to users operating on a different band. As a result, communications among Amherst EMS, Police, Fire and DPW is severely restricted.

Therefore, my **Number One Recommendation** is for the Town of Amherst to pursue the development of **our own cost efficient in-house public safety communications center**, which can be tailored to meet the specific interagency interoperability needs of all town public safety departments. Additionally, an in-house communications center may become the source of future revenue via regional expansion.

My Number Two Recommendation is for the Town of Amherst to stay with an overpriced MACC BASE and work to resolve ongoing professionalism and interoperability concerns.

In conclusion, I cannot support any communications plan that incorporates the splitting of public safety departments to multiple dispatch centers, due to the potential life safety delays in interagency communications. The use of Derry Fire, Keene and/or the Sheriff's Department as a cost savings option, will not benefit the needs of Amherst EMS and actually may pose an increased liability risk.

Emergency Communications Analysis Report

Appendix: EOP Update Grant



State of New Hampshire Department of Safety

Richard M. Flynn, Commissioner

Division of Fire Safety & Emergency Management

Office of Emergency Management

Donald P. Bliss, Director

Office: 107 Pleasant Street, Concord, N.H.
Mailing address: 10 Hazen Drive, Concord, N.H. 03305
603-271-2231, 1-800-852-3792, FAX 603-225-7341

March 7, 2003



Dear NH Emergency Management Director:

RE: Planning Grant Availability

The NH Department of Safety, Division of Fire Safety and Emergency Management received supplemental FY2002 funding from the Federal Emergency Management Agency that will be distributed to local communities through a competitive grant process, pending Governor and Council approval. The funds are specifically targeted to update local all-hazard emergency operations plans, to include a focus on weapons of mass destruction (WMD) incidents.

The purpose of the plan update is to ensure that local plans complement State and Federal Plans and address all-hazard operations, with special emphasis on WMD terrorist incidents. Planning funds may also be used to implement the following activities in support of the plan:

- Identification and protection of critical infrastructure;
- Inventory of critical response equipment and teams;
- Interstate and intrastate mutual aid agreements;
- Standardizing the categories of disaster response resources;
- Interoperability protocols, incident command system procedures and other resource standards;
- Local continuity of operations and continuity of government; and
- Citizen and family preparedness, including Citizen Corps and other volunteer initiatives in responding to an incident.

The Division is updating the state's emergency operations plan to mirror the federal plan. We are in the final process of developing a "Local Emergency Operations Planning Guide" which will be available for your use as you update your local plan. The primary goal of this program is to ensure that local, state and federal plans are consistent and fully integrated.

Additional information is enclosed to assist you in putting together your request for funding:

- 1. Application;
- 2. Introduction to State and Local EOP Planning Guidance, August 2002.

Planning Grant Availability Page 2 March 7, 2003

Applications under this program must be postmarked no later than April 18, 2003. We will award the grant funds no later than June 2, 2003.

There are no cost-share or match requirements associated with the FY02 supplemental planning funds, which are 100 percent federally funded. The grant period ends December 31, 2003 with final expenditure and performance reports due by January 31, 2004.

Applications and supporting documentation should be forwarded to:

NH Department of Safety Division of Fire Safety and Emergency Management Attention: Local EOP Grant 10 Hazen Drive Concord, NH 03305

If you have any questions please feel free to contact your Field Representative, Tammy Vaillancourt or Jennifer Harper at 1-800-852-3792 or 271-2231.

Sincerely,

Donald P. Bliss

Director

DPB/jlh

Enclosures

cc: Board of Selectmen (without attachments)
FS&EM Field Representatives
Tammy Vaillancourt, Planning Officer
Jennifer Harper, Anti-Terrorism Coordinator

NH Department of Safety Division of Fire Safety and Emergency Management FY02 Supplemental Planning Grant Application

	1.	Requesting Organization: Amherst, Town of			
		John DeSilva			
		Grant Coordinator PO Box 1199, Amherst, NH 03031			
		Mailing Address, City/Town, Zip			
		en de la companya de La companya de la co			
	: 2	Total amount of funding requested: \$18,000			
•					
	3.	Describe potential risks (all-hazard and potential terrorist targets) in your jurisdiction:			
÷.		New Boston Air Force Tracking Station- horders the community Souhegan High School- regional high school The community is in the flight path of Manchester Airport			
		State Route 101 an east/west highway B & M railroad operates a spur line in the community, parallel to 101 Energy North propane storage and refilling facility PSNH operates a substation in the community that serves approx. 23,000			
	4.	Does your community have an Emergency Operations Plan (EOP)?			
		4a. When was it last updated? 7/1992			
•	٠.	4b. When was the last time you exercised/drilled your EOP? 1996			
		4c. Do you have a Terrorism Plan/Annex to your EOP? No.			
		4d. Have you ever exercised/drilled your Terrorism Plan/Annex? No			
	5.	Outline your proposed planning budget, in detail. (If this information is not properly documented we may not be able to fully fund your request.)			
		documented we may not be dole to rainy raina your requestion			

Proposed Planning Budget for the Town of Amherst

Costs to research, identify, document, and develop an updated Emergency Operations Plan, with an emphasis on WMD terrorist incidents. In the process of updating and adding to the EOP, an additional emphasis will be placed on bringing our local EOP inline with State and Federal Plans.

- Personnel costs to address interoperability- \$10,000
- Personnel costs to address ICS procedures- \$1,500
- Personnel costs to update the local EOP- \$2,000
- Related personnel costs i.e. FICA- \$500
- Supplies to support information gathering, development and storage- \$4,000

Total amount requested-\$18,000

Personnel cost detail for the Town of Amherst

- Personnel costs to address interoperability-\$10,000
 - O Due to the complex nature of interoperability, the current state of interoperability in our community, and the time frame to complete it in under the applied for grant, we have budgeted \$10,000 to hire in a consultant to address this issue.
- Personnel costs to address ICS procedures- \$1,500
 - \$12 per hour x 60 hours x 2 personnel = \$1,440 (figure was rounded up to \$1,500)
- Personnel costs to update the local EOP- \$2,000
 - \$12 per hour x 80 hours x 2 personnel = \$1,920 (figure was rounded up to \$2,000)

FY02 Supplemental Planning Grant Application Page 2

The NH Department of Safety, Division of Fire Safety and Emergency Management shall reserve the right to verify any statement or answer given on an application for a grant under this part where good cause exists. Good cause shall include, but not be limited to the following:

- [1] a false statement or answer in an application; or
- [2] a change in the applicant's criteria which has not been reported on the application; or
- [3] inconsistent or inaccurate statements in prior applications.

I certify that the statements in this application are true and correct to the best of my knowledge. Should my jurisdiction be chosen to receive this grant, I acknowledge that I will comply with conditions of the grant.

John DeSilva, Fire Chief, Emergency Management Director

Name and Title of Grant Coordinator

<u>Carl Weber, Town Administrator</u> Authorizing Official for Community

4/18/2003

Date

Return completed application by April 18th to:

NH Department of Safety

Division of Fire Safety and Emergency Management

Attention: Local EOP Grant

10 Hazen Drive

Concord, NH 03305



State of New Hampshire Department of Safety

Richard M. Flynn, Commissioner

Division of Fire Safety & Emergency Management

Office of Emergency Management

Donald P. Bliss, Director

Office: 107 Pleasant Street, Concord, N.H.
Mailing address: 10 Hazen Drive, Concord, N.H. 03305
603-271-2231, 1-800-852-3792, FAX 603-225-7341



May 30, 2003



Dear FY02 Planning Grant Recipient:

The New Hampshire Department of Safety, Division of Fire Safety and Emergency Management is pleased to provide your community with an FY02 Supplemental Planning Grant. We have enclosed a Grant Agreement and Exhibits A-C; these exhibits outline the scope of services, grant amount, method of payment and special provisions. Please read all of these documents concerning your FY02 Supplemental Planning Grant award. If your community chooses to accept this award and the corresponding terms, we must have the following paperwork returned by June 20th to proceed with the Governor and Council process of approval:

- 1. Grant Agreement Fill in Sections 1.11–1.13.2.
 - a. If anyone other than a Selectmen/Mayor or Town/City Manager signs this agreement, then we need a letter granting that person authority to sign contracts/agreements on behalf of the community.

Once Governor and Council approval is given, you will receive a check in the mail for the total amount of the grant. We know that the time constraints involved in this process are quickly approaching, December 31, 2003. If you are comfortable working on the plan update, pending the official approval, we encourage you to do so. When we receive the signed grant agreement we will mail or email (your preference) you the "Local Emergency Operations Planning Guide" to use for this project. If you have any questions you can call me at 223-3652.

Sincerely,

Jennifer L. Harper

Exercise & Terrorism Coordinator

Attachments

EXHIBIT A

Scope of Services

- 1. The Grantee, Town of Amherst, submitted a proposal in which all activities described are eligible under the FFY'02 Supplemental Planning Grant. The proposal is hereby incorporated into this Agreement and attached hereto as Exhibit D.
- 2. The New Hampshire Department of Safety, Division of Fire Safety and Emergency Management, Office of Emergency Management (hereinafter referred to as "the State") is awarding the Town of Amherst \$12,254.00 which may be used toward any of the approved activities of their choice and/or priority in the process of updating their local all-hazard operations plan.
- 3. The Town of Amherst agrees to provide "the State" with an updated local all-hazard operations plan as outlined in their grant application.
- 4. The Town of Amherst agrees that the project grant period ends December 31, 2003 and that a final expenditure, performance report and a copy of the updated operations plan will be sent to "the State" by January 31, 2004.
- 5. The Town of Amherst agrees to comply with all applicable federal and state laws, rules, regulations, and requirements.
- 6. The Town of Amherst shall maintain financial records, supporting documents, and all other pertinent records for a period of three (3) years.

EXHIBIT B

Grant Amount and Method of Payment

- 1. The Grantee, Town of Amherst, agrees the total payment by "the State" under this agreement shall be \$12,254.00.
- 2. "The State" shall forward \$12,254.00 to the Town of Amherst upon Governor and Council approval of the grant agreement.

EXHIBIT C

Special Provisions

- 1. This grant agreement may be terminated upon thirty (30) days written notice by either party.
- 2. Any funds advanced to the grantee must be returned to "the State" if the grant agreement is terminated for any reason other than completion of the project.

The State of New Hampshire and the Grantee hereby mutually agree as follows:

GENERAL PROVISIONS

1. Identification and Definitions.

*

1.1. State Agency Name NH Department of Safety - and Emergency Managemen	Division of Fire Safety	1.2. State Agency Address 10 Hazen Drive Concord, NH 03305				
1.3. Grantee Name Town of Amherst		1.4. Grantee Address PO Box 1199, Amherst, NH 03031				
1.5. Effective Date G&C Approval	1.6. Completion Date December 31, 2003	1.7. Audit Date N/A	1.8. Grant Limitation \$12,254.00			
1.9. Grant Officer for S Jennifer Harper	tate Agency	1.10. State Agency Telephone Number (603) 271-2231				
1.11 Grantee Signatur	half.	1.12. Name & Title of Grantee Signor JOHN F. DINKEL, JR. CHAIRMAN BORS				
4.13. Acknowledgment: State of New Hampshire, County of Hallsborough, on 6 /2 /03, before the undersigned officer, personally appeared the person identified in block 1.12., known to me (or satisfactorily proven) to be the person whose name is signed in block 1.11., and acknowledged that he executed this document in the capacity indicated in block 1.12.						
1.13.1. Signature of Notary Public or Justice of the Peace SHARON L. FRYDLO, Notary Public My Commission Expires December 19, 2006.						
1.13.2. Name & Title of Notary Public or Justice of the Peace						
SHARON L. FI	240LO, NOTARYPO	BUC				
1.14. State Agency Signature(s) 1.15. Name & Title of State Agency Signor(s)						
	Timothy H. Mason, Director of Administration					
1.16. Approval by Attorney General (Form, Substance and Execution)						
By: Assistant Attorney General, On: / /						
1.17. Approval by Governor and Council						
		• .				
By:			1			
2. SCOPE OF WORK: In exchange for grant funds provided by the state of New Hampshire						

^{2. &}lt;u>SCOPE OF WORK</u>: In exchange for grant funds provided by the state of New Hampshire, acting through the agency identified in block 1.1 (hereinafter referred to as "the State"), pursuant to RSA , the Grantee identified in block 1.3 (hereinafter referred to as "the Grantee"), shall perform that work identified and more particularly described in the scope of work attached hereto as EXHIBIT A (the scope of work being hereinafter referred to as "the Project").

Emergency Communications Analysis Report

Appendix: BOS Minutes

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BOARD OF SELECTMEN MINUTES **FEBRUARY 9, 2004**

Chairman Jay Dinkel called the meeting to order at 7:04 p.m. Selectmen present: Bruce Bowler, Robert Heaton and Marilyn Peterman (at 7:10 p.m.) Also present Town Administrator Carl Weber and Executive Assistant Sharon Frydlo.

Public Hearing - Adelphia Franchise Renewal

Mr. Heaton moved to open the public hearing at 7:04 p.m., second by Mr. Bowler. Vote: Unanimous.

Mr. Dinkel advised the public hearing was the first step in the potential contract renewal for the franchise agreement with Adelphia. He turned the hearing over to Stephen Coughlan, Chairman of the Communications Infrastructure Committee. Mr. Coughlan introduced the committee members present: Jeff Hall, Erick Nickerson, Doug McAllister and honorary advisor from the SAU, Susan Ward, Technology Director.

He indicated that they were here that night because Congress said they should be. Adelphia currently has a franchise contract that expires in 2006. The process starts three years prior to the expiration. Adelphia met the first step of the 1984 Cable Act and notified the Town that it wishes to renew the franchise. The CIC Committee have held a series of public meetings and began thinking, based on their meetings, what they thought the community wants in a cable franchise holder. What they felt the town wants was based on a year and a half of meetings and communications. Areas to be Considered: (1) Television, (2) Internet, (3) Service, (4) Future Features that don't exist today, (5) and the Franchise Agreement itself.

Television: Limits should be set on channel signal outages. Subscribers should be able to select channels on an a la carte basis. Basic tier channels should be assigned low channel numbers (limiting cable boxes to view them). This includes local and PEG (Public, Educational, Governmental Use) channels first, then news and weather channels. Three PEG channels should be set aside for community

Service: Written monthly reports to the Selectmen on a monthly basis. The report should include: Monthly households served; monthly broadband data subscribers; monthly service calls received; number of service calls resolved; date, time, duration of video outages that impacted multiple subscribers during the month; the same with broadband data outages; and monthly estimated revenues subject to the franchise fee. Have a single local service phone number for questions and/or complaints. Provide a management presence in Southern New Hampshire since as of today, there are 19 towns managed out of Londonderry – the subscribers would like to talk to someone local in charge and not someone in Florida. They would like to have a local service office for them and would like to have service calls answered promptly. There is, Mr. Coughlan said, only one area where there is a significant amount of homes where there is no service and would like to change the density requirement (at least 15 year-round occupied homes), that would have a major affect of having the last area serviced - upper Mack Hill. General Manager Bob Nelson advised that there was a long distance to get to upper Mack Hill. The last item under Service was a worse case scenario, said Mr. Coughlan, and that was that the provider may not withdraw service from any area in town currently serviced during the term of the franchise agreement.

Mr. Coughlan advised under current law the only thing the Town can negotiate with the current provider is what they currently talked about and the way Adelphia services them. Broadband is not in their perview. They can investigate cable related needs, and could set forth cable related requirements they

saw from their experience. It was unlikely that Adelphia would be obligated to enter into agreement with

Internet: Relative to the Power Point slide relating to data service upstream and downstream, Mr. Weber asked for a description between upstream and downstream? Mr. Coughlan explained that normally an internet user sends (up to 257K) out and less than what they get back (as little as 80K). In all fairness, he said, not all slowness was caused by the network, but some of it was. Criteria should be specified in the agreement setting broadband data access limited outages. Subscribers will get a service credit when the network is not performing – the usage is much more universal to the Town than individual subscribers. Relative to email addresses assigned to broadband data subscribers, they would remain valid for the term of the franchise, Mr. Coughlan indicated this had not been a problem with Adelphia, but has been one with other providers. Should Adelphia change its name or be purchased through another franchise agreement – they would like the same type of agreement. The provider shall provide an option of transferring their email address to another domain. Relative to the basic features of 5 email addresses and network storage space that would stay the same. Ask the cable provider to provide alternate means, if broadband is disrupted or not available. Adelphia rewired the town and the town would like access to the dark fiber for the purpose of interconnecting the schools and town buildings at no cost. The schools need this now and the town in the future.

Mr. Coughlan advised that the Committee spent a great deal of time wondering what was next. No one in the room signing the agreement in the past could foresee what television and internet was to be today. They do not have "special vision" of what will come in the future. **Future Features:** They ask that the franchise holder meet annually to review what is happening in the cable industry to make sure services provided in other areas of the country are being provided in Amherst. To also find other ways for rapid deployment of new services or technologies to subscribers. They ask that when some enhancements are given to Amherst's neighbors of Nashua and Manchester, this would trigger some enhancements in Amherst too.

Franchise Agreement: Mr. Coughlan advised Adelphia bought out the original franchise agreement (15 years) with Americable and they did not want to lock themselves into another 15 years where they did not get to talk to Adelphia about anything and were suggesting a five year term. They were suggesting only annual price increases with a three-month notice to the town with no charge basic service being provided to the town and school. They would also like no charge broadband data service for the town and school. He mentioned that no charge web hosting for the town would be a nice thing to have.

Mr. Coughlan asked Bob Nelson, Adelphia General Manager, to comment on what was happening in his industry and how did he see things going in the future. He also asked that Mr. Nelson not comment on the various points because they still were two years away from the agreement. Mr. Nelson advised his office was in Londonderry and with him was Butch Donahue who has the technical expertise and been in this area for almost 20 years. He did not know Harron Communications and moved here four years ago from Ohio. Questions are what does the customer want from the cable company for the next ten years. Are they looking for a company to provide quality channels, quality service and you want to make sure they don't go down. Are you looking for PEG channels? Adelphia will negotiate all this with the town. Anything negotiated will be passed through to the customers. If you want to keep bills as low as possible, you need to keep this in mind through negotiations. Relative to internet service, it is a telecommunications service and addressed by the FCC. Mr. Nelson briefly mentioned powerlink services and indicated that Amherst has surpassed Nashua and Manchester and means the town has more fiber than both of those cities. He said that unless there were specific questions, he would just take notes at this time.

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Mr. Dinkel thanked the CIC Committee for getting the thought process lined up as they go into the negotiations as it was a good starting point.

Mike Dell Orfano, Mack Hill, asked about Adelphia's bankruptcy. Mr. Nelson replied they filed for Chapter 11 which is restructuring and look to come out of it in July of this year. As far as another company coming in, all franchises in New Hampshire must be non-exclusive. To come in, the capital costs are extremely expensive. The capital lines are owned by Adelphia and another company would need to come in and put other lines on the poles. Teanna Croteau, end of Mack Hill, said she was told three years ago she was going to get service and asked if they had to wait another three years? Mr. Nelson remarked he couldn't answer this in a public hearing and asked if he could speak with her afterwards. Mack Hill is a long stretch and because of Chapter 11 the courts maintain how they do business and currently they cannot build any capital items. Ms. Croteau said that in this day and age it was more important to get internet service rather than cable television. When they are out of Chapter 11, it is their duty to provide this service.

A Nathan Lord Road resident commented that after they filed for reorganization under Chapter 11 with a management team, the fees kept on increasing \$60-\$80 for basic internet. Can customers buy the modem so that they don't have to pay an additional fee each month? He was concerned the direction Adelphia was going – now the product is not bad, but it is getting astronomical in price. Mr. Nelson said they can own the modem and they could go to Best Buy and purchase one. Mr. Donahue has spent a great deal of time building up powerlink and much has changed in 15 years. Amherst was "beefed up" last year and was rebuilt with fiber cabling. Relative to bills and rates, Adelphia is very competitive and it is his job to make sure what is going on around him. They also stand very competitively with dish network and have more channels on their second tier. There was a rate increase last year and after rebuilding the cable, they had a similar increase – similar to other towns. Adelphia provides choices for the customers and the more the customer takes, the more the bill increases and you get economy of scale. He said he could show rates from Comcast and Direct TV and how they compared with them, but was here to discuss what the citizens want from their franchise.

CIC Vice Chairman Jeff Hall read into the record a letter he received from Ann & Buck Howe, of Buckridge Drive – "We recently added Adelphia broadband to our basic plus cable package. We needed to upgrade our ability to access the internet and download files quickly. We had to choose Adelphia because they are the only broadband service in town (which we object to vehemently). We feel like we are being held hostage. We feel very strongly that for the money Adelphia charges, we should get a service that is at least equal to the quality email service we have received from other service providers since the 1980's. With Adelphia we are experiencing a ridiculously low space allocation for email and the inability to travel between home and office and access messages read on another computer. Also we object to the following: (1) Close to a 50% basic cable price hike over the last three years. This is outrageous. (2) That you must subscribe to their basic plus service in order to sign-up for broadband. (3) And most of all, that Adelphia is the only choice the town gives me. What happened to competition?" Mr. Hall said he received similar comments from Jeff Odhner.

Cliff Harris, 18 Stillwater Drive indicated he had broadband with his cable and is paying \$93.00 per month for the same amount of channels he had in the past that cost him \$40.00 – he has been in his house for eight years. His concern is that Amherst only has one choice. George Infanti, 15 Colonel Wilkins, said as a former Milford Selectman, he had gone through negotiations three years ago and wanted folks to understand there is only one cable company. They will not get someone else to come in and reroute the entire town. They don't have the option of having three cable companies. As a town and as a group they have to negotiate. Disk looked good on paper, but they told him it would cost \$900 because his driveway is too long. They have two years to negotiate and right now they have only one player.

Mr. Harris asked if they had an analysis of what Amherst was paying compared to other cities and towns throughout the country? Mr. Coughlan replied they would have to do the research, but it was his feeling that the town was comparable and felt they paid less than Nashua and Manchester, however, "it doesn't feel like this when you write the check every month". Fenn Nielson, Beaver Brook, spoke about his increase. He said he called Adelphia several times and was told there were no guarantees for work activities - he could only do internet surfacing, but it could not be used for work. Mr. Nelson explained their policy for powerlink as it pertains to work related issues. Certainly they did not want anybody not to surf the internet, but they didn't want customers to come back to them saying it cost their business "x" number of dollars because Adelphia was down "x" number of hours. Mr. Weber remarked that the Amherst Library ran into this issue and they have to pay Verizon \$1000 per month and had to have guarantee liability because you can't do this for \$40.00 a month. Mr. Donahue indicated Adelphia had 24 hour service.

David Thibodeau, Governor Wentworth said he had Direct TV and was not an Adelphia customer and he is paying \$90.00 per month and his internet is not as fast and pays \$45.00 per month for it with the remaining amount for cable. Mr. Dell Orfano thanked Mr. Coughlan and his Committee for their attention to the upper Mack Hill area. He asked if the town would float a bond issue to wire the town and to own the network, would it give him any service? Mr. Coughlan advised they have been looking into the feasibility of this. As of September, the cost would be between \$13-15 million dollars to line fiber to every home. If you were a taxpayer and floated a \$15 million bond, it would be pretty expensive. Their first survey was negative and they haven't gotten back the data from the second one which was the cost of all the gear to deliver some service to every home.

Mr. Dinkel indicated this would be a revenue tax bond and was something the Selectmen talked about and the CIC Committee has done some legislative work and is some of the Selectmen's homework during the next two years as to what their options are. George Bower, upper Mack Hill, spoke about running his business out of his own house throughout the country with internet being critical to him as well as having access to a cable line would be advantageous. He talked about home occupations in Amherst that will continue and having this line of service is critical to the town. He said, his options would be entirely through satellite.

Mrs. Peterman said Mr. Nelson mentioned franchise negotiation only including television because of the law. She asked if he had talked to any of the town's representatives and did he know of any legislation pending or proposed? Mr. Coughlan replied that this was not to his knowledge, but their legislative arena was "just heating up" and something was going to happen. In September the Federal House and Senate mentioned this was low on their list with the State saying hands off on this. Mrs. Peterman indicated her concern was Adelphia's rate structure and as a customer, she asked if didn't they have to go to someone to set their rate? Mr. Nelson advised the rate was set by the market place with \$13.40 for channels 2-32 and their costs were going up. He spoke about the NFL going on television as well as Turner products where they received a 20% increase from them – therefore, he said, everything increases.

Mr. Heaton indicated that their Committee will be looking at all of the town's options as the Selectmen negotiate. They cannot force Adelphia to loose money for servicing the Town of Amherst. They will have other input and other propositions and this will be an interesting process and had no idea where the town will end up. They certainly cannot tell Adelphia what Amherst wants and expect them to do it and this was not the way to do this in a free market place. Mr. Dinkel asked what was the length of contracts he has recently seen? Mr. Nelson indicated the average was 10 years, however, Milford, Merrimack, Hudson were seven years, but it took them a long time to negotiate.

Mr. Coughlan advised the next step was to look at the public record of received written complaints about Adelphia service, public records held by Adelphia in accordance with FCC regulations and assessment of

Adelphia's financial ability to provide service. In response to Mr. Dinkel's question, Mr. Nelson indicate from what he understood was that Mr. Weber spoke of Adelphia's addressing the renewal process and that this public hearing has been held and he knows what the citizens want, which is basically they would like to have the contract negotiated and want to come in and sit down and talk informally. Mr. Coughlan remarked that the presentation was what the Committee heard back from the citizens and what they wanted.

Mrs. Peterman stated that from her experience, her recent conversation with Adelphia was pleasant. Mr. Nelson reported that within the next several months they will be making some technical advancements such as video on demand as well as offering digital phone service to name a few. Adelphia is the fifth largest cable company and will come out of bankruptcy in June or July. Mr. Heaton moved to close the public hearing at 8:21 p.m., second by Mr. Bowler. Vote: Unanimous.

Other Business Baboosic Lake Update

Mr. Weber reported he had talked to the engineers last week and they have changed several of the bid specs and the new bid will go out again for the first phase – hopefully they will receive more than one bid. They approached the State and are putting in for additional funding. They will put it out to bid at the end of this week with 4-6 weeks for folks to bid on it. They will get the revised pricing in time for April's Governor's Council Meeting and put in a placeholder for an additional 20% for the next phase. He will be sending a letter out to the first eight residents this week. He will also have Charlie Tiedemann check on those particular septic systems to see if any were leaching out.

Mr. Bowler reminded the Board that the S.R.L.D. representatives will be meeting with them next week.

Mr. Dinkel reminded them of the Law Lecture Series at Anheuser Busch on the 19th sponsored by the NRPC. He mentioned that there was group stormwater grant help available and the NRPC offers something that might mitigate the costs. He also reported that Primex will be offering Harvard Pilgrim Health Care soon.

Southwestern NH District Fire Mutual Aid

Mr. Dinkel explained the Board went to Keene and visited with Paul Szoc and his staff to see their set up and learn more about what they offered and what they may be able to take advantage of – this is phase II of this discussion.

Chief Szoc advised he was chief coordinator with KMA and had been with the system for 28 years. KMA also services areas in Vermont and Massachusetts as well as New Hampshire. He gave a brief history of how they got started and under RSA 154:30 that was passed in 1958 recognizes them as a District Fire Mutual Aid System. They dispatch for fire, emergency medical services and emergency management as well as monitoring alarms systems and they have 16 communication specialists. He talked about the benefits of being dispatched by KMA: Sharing costs with the membership, control by elected directors, long term employees with 13 years average length of service and a combined service of 222 years with 89% of the dispatchers having worked in fire and EMS fields.

Chief Szoc said the dispatch center has been around for 50+ years and they have recently restructured their sources of funding. The restructured funding will go into effect in 2004. Cheshire County will be paying for their towns and KMA will be assessing the other towns individually. From January thru June they receive six equal payments from Cheshire County. July thru December they receive monies from outside Cheshire County. They also receive funds from other companies such as for alarm monitoring as

well as from grants. He talked about the structure of the Center – it was multi-jurisdictional and served 78 towns in three states, it covers 3000 square miles with a total population of 300,000. KMA covers 49 fire departments in New Hampshire, 27 in Vermont and 2 in Massachusetts. It covers 13 New Hampshire EMS agencies and 5 in Vermont. Besides dispatching they handle alarms and weather alerts. They have 18 phone lines, six elevator emergency lines, a national warning system, are the backup system for Keene Police and their 2003 traffic was 148,940 phone calls.

The Chief continued ... The service dispatched 14,865 fire calls and 15,041 EMS calls. The communication systems consists of radio equipment, 11 primary dispatch channels, 4 fire and rescue channels, 2 EMS channels, 5 tactical fire channels, 16 secondary ones and have 13 antenna sites. Mr. Dinkel asked about the dead spots in Amherst. Mr. Szoc said he had met with Chief John DeSilva last fall and got 60-70% with the pager. Their Temple Mountain site is not pointing in this direction because there was no need. There would be no way to get 100% because of the terrain. Mr. Dinkel then asked what changes would have to be made to be as good as they can be? Mr. Szoc indicated that the coverage has to be improved no matter what agency they choose. He talked about putting a repeater at the top of Crotched Mountain and something they will be addressing next week to see if it is feasible. They will also be applying for a Pack Monadnock site to improve their coverage area. He did not think they would have any problems with mobile equipment because he signed off within a problem area in town.

Mrs. Peterman mentioned they were a growing organization and either they had to stop growing or increase their area and equipment – had they decided what the threshold was before they had to do something else? The Chief indicated there was a discussion about moving the fire department and if they move, KMA would probably move with them. They are looking at growth and will have to make a decision soon. They have a good working relationship with Keene Fire and share the station with them.

In answer to Tom Grella's questions, Mr. Szoc indicated they had back up generators on all but two sites (these have battery backup). They recently received a grant from the State of New Hampshire and will soon only have one site with battery backup. Relative to the Board of Directors, because they have 78 towns, they have regional directors. Chief Szoc talked about the number of dispatchers on duty as well as the reason they had stopped dispatching for the Keene Police Department. One of the reasons was to access NCIC legally, they would have had to change their structure and would have then come under the local Sheriff's Office. They also had a problem getting S.P.O.T.S. If they kept the police department, he would have put on four new dispatchers.

Relative to mutual aid and Mr. Dinkel's question, the Chief said Keene would come to Amherst. Deputy Chief Grella advised that as part of the Souhegan Mutual Aid Association Amherst has gone as far away as Peterborough. However, the biggest consideration was radio coverage. Mr. Dinkel advised the Board would have to make a decision by March 31, 2004 otherwise they would be obligated to be with MACC Base until December 31, 2005.

Minutes

 Mr. Bowler moved to approve the minutes of January 26, 2004, second by Mr. Heaton amended as follows: Line 114 – strike the sentence beginning with "He said he felt ... and ending with "no way Amherst can do this." Vote: Unanimous.

Mrs. Peterman moved to approve the minutes of February 2, 2004, second by Mr. Bowler amended as follows: Line 127 – strike "mobiles" and replace with "mobile repeaters". Vote: Unanimous.

Other Business The Board briefly talked about the article they are preparing for the newspaper. Mr. Dinkel also advised Graham Hankey gave him a letter to sign, but he will be adding that it was "on behalf of the Board". Mr. Bowler reported that the Conservation Commission met the night before and they will be having their members write more letters in support of the open space initiative. Non-Public Session Mr. Heaton moved to go into non-public session under RSA 91-A:3 II (a), second by Mr. Bowler. Upon a show of hands the Board voted unanimously to enter non-public session at 9:32 p.m. The Board exited non-public session at 10:15 p.m. and voted unanimously to seal the minutes. Respectfully submitted, Sharon L. Frydlo **Executive Assistant**

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Chairman Jay Dinkel called the meeting to order at 7:02 p.m. Selectmen present: Bruce Bowler, Marilyn Peterman and Robert Heaton. Also present Town Administrator Carl Weber and Executive Assistant Sharon Frydlo.

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Souhegan Regional Landfill District - Tipping Fees

BOARD OF SELECTMEN MINUTES

FEBRUARY 16, 2004

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Representing the District: Arthur Leblanc, Chairman, Bruce Berry, Jack Kunkel and Denise Jacobs, Secretary/Treasurer. Mr. Dinkel explained the Board's question of the tipping fees recently imposed by the District as it related to Amherst residents. He asked was this a monitoring-type issue based on some infractions of commercial haulers bringing waste into Amherst or something else? Mr. Leblanc briefly talked about the fact that a few years ago (after never taking in commercial haulers) the District discussed it and decided to take them. When the haulers picked up the material, it became their material and they had the responsibility of disposing it. The recyclables are to go to Hollis and Amherst would be reimbursed for its time and the use of the scales. This was to get a better handle on what was happening. A hauler picks up material and trucks it to Merrimack and is charged "x" number of dollars per ton - the same in Milford. This is exactly what the District is now doing, he said.

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Mr. Dinkel commented the issue was Amherst residents were being charged twice. Mr. Leblanc reiterated that the minute the residents' trash was put out at the curb it becomes the material for the hauler. Mrs. Peterman remarked that one particular development felt they were being charged twice for having their trash picked up by a commercial hauler, but she did not feel they were singling out this particular development. While she mentioned historically what the District has done, their hauler increased their fees for that service significantly from what the Selectmen were told and this was where the development was feeling the increase and she felt they were not being discriminated against. However, there was another hauler that had not charged a significant increase because of the increase in tipping fees.

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Mr. Heaton indicated that he and Mrs. Peterman had a difference of opinion. If a resident could take the trash to the transfer station himself, he would not be charged a tipping fee, but because a resident is unable to do it or choose to have a commercial hauler, they would have to pay another tipping fee and pay more and he spoke about the philosophical issue. He saw the merits of the argument that once the trash is on the curb the commercial hauler owns it. Why, he asked, should someone get penalized for not taking their trash to the dump, but rather by a hauler? He understood that there were some significant issues in determining if it was Amherst trash and the monitoring of it. If it was an issue of how Amherst charges their customers, he did not think it should make a difference to the District if the town charges tipping fees, because Amherst pays by the tonnage. During a part of this discussion, Mr. Berry advised that trash and all of the recyclables, with the exception of aluminum cans, increased by 9% and was not sure the town could take "a hit" like this. Mr. Heaton indicated this was a budget item the Selectmen would have to address.

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Mrs. Peterman felt if they were to do this, they would have to take all the condominiums into consideration and would be increasing the trash and trucking without being compensated. She talked about Condo Associations figuring "x" number of dollars for trash pickup into their budgets and condo owners were not being taxed twice because they were living in an area that includes trash pickup as one of their amenities which was part of their fee paid to the Association. Mr. Leblanc commented the District had already told Associations a maintenance person could bring in the trash and someone has chosen to ignore that option.

Mr. Heaton asked for clarification – whether or not the Selectmen did something in Amherst, would it financially affect any other towns? Mr. Kunkel remarked that the cost for commercial haulers in Amherst is so much lower it would be natural for them to bring into the transfer station other trash. Mr. Heaton questioned, if Amherst accepts commercial haulers bringing in residential trash from Amherst residents and it increases the tonnage, does it affect any other towns besides Amherst? Mrs. Jacobs talked about the operating capital budget and the way it had been arrived at before (based on population) for every town. After careful consideration the District came up with a percentage based on each town's total trash for a 12 month period against the total tonnage. Mr. Heaton remarked if they take in additional tonnage, Amherst would pay for it eventually and next year's percentage will be different. Mr. Kunkel commented that there was a likelihood that Amherst would receive an increased cost disproportionately because they were leaving "an open door".

Mr. Dinkel indicated that this was a service Amherst has chosen to support through taxation and the fee affects just Amherst and their Transfer Station. Mr. Leblanc indicated the fees go directly to the District. They keep track of the income and of each account. If Amherst wanted to do something different, he would like to see it done internally and keep the District out of it. If Hollis and the other towns wanted to do the same, he would treat it in the same way. He did not want to get into town politics.

Mr. Bowler spoke about the fact if they did not having tipping fees there would be an increase in transportation with more trips from Amherst to Pennicook because transportation costs were going up and will potentially affect the town. Mrs. Peterman said she was uncomfortable for what they were asking ... the District had asked for a policy change and they as a town did not want to follow the policy. Mr. Dinkel said he wanted to ascertain if it was only Amherst? Mrs. Jacobs explained the money supports the whole system. She had a problem issuing permits with one hauler paying one fee to one town and a different one to the others. Mr. Leblanc mentioned this was a District, individual towns pay for their labor and the benefit goes to the District as a whole. Mr. Berry indicated that the commercial hauler, they were talking about, in general, decided not to use the Amherst facility at all and the other hauler was using it without any problems.

Mr. Dinkel commented his original point was the Selectmen were not sure who had the ability to assess fees and did it lay within the District and one they did not want to dispute. It was a moot point since the particular commercial hauler would not be using the Amherst Transfer Station. Mr. Leblanc said he would like to clarify that when the Amherst Selectmen asked the District not to implement the new tipping fee schedule, he did not have the full authority from the SRLD Board to do so, but understood Amherst's logistics.

Mr. Heaton spoke about the issue of enforcement. Mr. Berry indicated he was extremely uncomfortable to ask any of his employees to rip open bags from commercial haulers. Mr. Heaton asked if the SRLD had enforcement policy or procedure in this regard? After a brief discussion as to current and past policy, Mr. Heaton asked who was responsible to oversee this and if it was done, what safety measures were in place – personally, he did not want to see Mr. Berry or his employees undertake this procedure without taking safety precautions.

S.R.L.D. - Horse Manure Stockpiling

Mr. Dinkel explained that the above is an item that Mr. Berry has been faced with recently. Mr. Leblanc indicated that Hollis takes it in, but not at the facility itself. They have a stump dump, have a person with a commercial compost operation across the street and he takes it for nothing. Mrs. Peterman spoke about nitrates and Mrs. Jacobs indicated that the engineer said they were not monitoring the wells now, but if someone down the street tested their well and there was a problem, they would immediately look at the landfill as the source. Mr. Berry saw this stockpiling as potentially causing a problem but he was not

looking for an answer that day. He did not want the Selectmen to endorse it and then find the S.R.L.D. was uncomfortable with it. Mr. Bowler suggested they wait several weeks to have the District weigh in on it at its monthly meeting. This would give them time to determine how much manure was coming in. Mr. Heaton asked if this was an issue that should be determined for all the towns in the District? Mrs. Jacobs indicated that their only concern is the landfill. Mr. Leblanc added that if it comes in and it pollutes the ground then it was a problem for Amherst. Mr. Dinkel mentioned that Mr. Berry was satisfying one farm and the other farm should know they were considering a policy. Perhaps they should get a recommendation from the S.R.L.D. after their next formal meeting. Mrs. Jacobs commented that if they had some weights, the engineer said it would help quantify it. Mr. Dinkel indicated they would need to know what it would cost the town to maintain or dispose of this material. Mr. Dinkel thanked the representatives for coming in and discussing these issues with them.

Campaigning at the Transfer Station

Mr. Dinkel stepped down. Mrs. Peterman indicated that Mr. Berry alerted the Selectmen to possible problems at the Transfer Station during the campaign season and spoke briefly about the current policy. Mr. Berry thought the policy could come somewhere in between the current one and one that he was suggesting. This has stemmed out of an issue occurring last year where one individual was going from car to car with traffic backed up out onto 101. The old policy indicates that the employees would manage any problems, however, it was fortunate that Mr. Heaton went out and "squared" the problem away. He recommended that they have a policy where people who are campaigning go to the top of the hill on the interior side because there was a certain amount of danger where someone could get hit. He was looking for something to keep the flow going and accommodate politicking at the same time.

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Mr. Bowler agreed, but had a problem with the center and the campaigners needed to have more interaction and drew his suggested diagram for the flow of traffic. He suggested registering with either Marge or Sharon and put barricades near the containers and mentioned that some candidates last year ran up to cars before they even stopped. Mr. Heaton did not like the idea of advanced registration nor was it practical. Mrs. Peterman agreed that having advanced registrations was too complicated. She talked about a few problems the Town has had over the years since they have been doing this. Mr. Bowler suggested the policy be made available at the Transfer Station to hand out.

Mr. Berry indicated their discussion was a start and he was encouraged by the comments. He said he would like something in writing. Mrs. Peterman indicated they could amend the 1990 policy that has been in existence. Mr. Heaton asked if it would be fair to ask the person on duty for the option to call the policeman on duty if there was a problem? Police Chief Gary MacGuire indicated that if the Police were trying to enforce something that was nebulous, what they would be dealing with was disorderly conduct. Mr. Heaton moved to amend the existing policy to reflect the restrictions that there be barricades put up (see diagram) and all campaigners need to follow the new guidelines, second by Mr. Bowler. Vote: 3-0-1, Mr. Dinkel abstained. Mr. Dinkel returned to the Board.

Hillsborough County Sheriff's Department Re: Communications

 Arthur Durette, Chief Deputy Sheriff from the Sheriff's Office met with the Board. Department Heads present for the discussion: EMS Director Brian Gleason, Police Chief Gary MacGuire and Fire Chief John DeSilva. Chief Deputy Durette explained the Sheriff's Office primarily dispatches for itself, but over the years different towns engaged in contract services with them. Towns pay for their dispatching services through taxes, but they charge towns they dispatch for additional fees. They currently dispatch for seven communities with some for Police, two are for Fire, three EMS and four Highway and is at those town's request. The Sheriff's Office does not go out and solicit any business. In response to Mr.

154 Heaton's question, Mr. Durette said the towns they dispatch for are Litchfield, New Ipswich, Mason, 155 Greenville, Greenfield, Francestown and Temple. All together they have the same call volume as 156 Amherst.

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The Chief Deputy Sheriff explained they were now housed in the court house in Manchester but will be moving the Sheriff's Office to Goffstown and will be moving within the next several months. There is one dispatcher on a Friday and Saturday midnight shift. There are five full time and ten part time employees. In response to Mrs. Peterman's question, Mr. Durette indicated if they took on a town the size of Amherst, he would expect to put on more staff and another console to accommodate Amherst. They were running two consoles and have a third that was not staffed.

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Mr. Heaton asked if they were willing to take on Amherst, if asked? Mr. Durette replied they were willing and able, but there were things that would have to be done and put in their budget - their fiscal year goes from July to June. All things in this budget would be reviewed by the Executive Committee, he said. Mr. Heaton then asked if they were prepared to offer all dispatching that would include Fire, EMS, Police and DPW? The Chief Deputy replied "yes". He spoke about using multiple dispatching services that got confusing and it was easier to have all services being dispatched by one center. The Sheriff's Office will accommodate whatever Amherst wanted to do.

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Mr. Heaton asked about costs. Mr. Durette indicated that what they would charge the town annually was one cost plus whatever it would cost the town in the beginning (initial costs being higher). Mr. Heaton explained the Selectmen have been listening to other dispatch centers and it appears that many centers do not like to dispatch in other areas. Chief Deputy Durette spoke about unified command in that now departments were asking so much information from the dispatchers (hazardous material, building plans, routine business). He also talked abut a crisis or multiple agency response with people they were face to face with by having the group (police, fire, EMS) working together instead of separately.

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Mrs. Peterman indicated that Hillsborough County's budget was decided by the delegation of County Commissioners and put together by them. Her concern was that his department's funding may not be given totally to the Sheriff's Office. If they underfunded his department, she asked, what did they do to maintain the requirements for dispatching a town like Amherst? Mr. Durette said this had never happened, but it didn't mean it couldn't happen. If they underfunded it, it would be a salary line, he said. If the Sheriff's Department had a contract with a town for a particular cost, they couldn't break this and would have to take money from somewhere else.

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Mr. Weber asked if he was able to work up cost estimates and what level of certification did the dispatchers have? Mr. Durette indicated they had PCO and Power Phone and were working on the State certification through the Policy Academy. Insofar as cost estimates, the significant part of it will be salary and equipment costs in the initial stage because the Sheriff's Office will ask the town to pay for additional equipment they may need such as for a transmitter in Amherst - the Department would maintain anything in their building. A console was approximately \$12,000 and salaries approximately \$60,000. He indicated he had spoken to the town's engineer and he thought Pack Monadnock was a good spot to transmit Amherst from. If the town had a repeater up there, it would get better coverage and be run off their generator. The town would gain wider coverage and not have to pay for phone lines

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Mr. Heaton asked when looking at costs down the road, did they use any specific formula? Chief Durette replied that different leadership had driven it in different ways. In past history, it was arbitrary information and based on population. It then went to call volume based on how many calls were placed the prior year and came back to an average plus 5%. Mrs. Peterman asked about turnover in dispatchers. The Chief indicated there were very little turnover in full time. Part timers can only work one or two shifts and they were trying to build up more full time people.

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Mr. Bowler asked Chief MacGuire what type of coverage did they have on the police side? The Chief indicated that on the repeater site they had no problem, however, they were not frequently on the County's frequency. Mr. Weber asked about the issue with S.P.O.T.S. Mr. Durette indicated if the town was going to invest in a repeater for voice transmission and put in another one for data on Pack Monadnock, the coverage area would be greater with both.

Chief MacGuire spoke about the State allowing mobile communications, such as at Pack Monadnock, without dealing with the issues of security because it had to be a secure line. He felt there still would be some homework needed because they could go as simple as (from the engineer's point of view) using their existing antenna and going to phone lines. There was almost no cost for phone lines, but the issue is coverage. EMS Director Brian Gleason commented that the Chief said the Department did not look for additional services, but asked about customer service. Chief Durette explained they wanted to get the quality of service and be sure everyone was satisfied. In his case, the person with the medical issue, is handled correctly and politely and get the services they need. Customers needing their dispatch services are of mixed discipline – firefighters, police, paramedics and they are very strong on qualify of service.

Mr. Heaton asked what vehicle did his customers have to address any of the above issues? Mr. Durette advised that from the town's point of view, they were able to call the communications supervisor and address the issue and he would get right on it. If it was a constituent they may not go through the Department directly, but they have a complaint form for people to file. He explained they had dispatching meetings where they invite everyone involved from the various towns to all get together to discuss issues within their towns.

Mrs. Peterman asked about representation since some of the dispatch centers have Boards that represent each town. Chief Durette explained they had no governing body. Usually the Department would meet with the manager or a contact person in each town could send anyone they wanted, but there was no entity that specifically dealt with this. EMS Director Gleason asked about recall of their overnight staff. Mr. Durette explained they had a number of people that live nearby and would be able to get in quickly and had the ability to order people in in a serious situation.

Amherst Fire Chief John DeSilva asked several questions - Mr. Durette indicated that all police departments had Hillsborough County, but some had their own. Relative to PCO Certification he explained the dispatchers received CTO and Basic. The Department also wanted them to get as much training as they can receive. They have a good relationship with Concord and if they were having a class they can sometimes get their dispatchers into the Academy – they can't have enough training, he said. Chief DeSilva asked about protocol? Chief Durette said this was a struggle to compromise and agreed to that there was standardized protocol in most cases. There are SOP's in most towns and initially they are dispatched the same way – this was to insure the most urgent calls were done the same way.

Also in response to Chief DeSilva's question, Mr. Durette indicated that DPW was on low band. They own repeater frequencies and town's own Fire and DPW frequencies. The Department uses UHF repeaters to connect to low band transmitters. Mr. DeSilva also asked what CAD software did they use? The Chief advised they were using IMC which was software for dispatching Fire, Police, and EMS. Relative to Mr. DeSilva's next question, Chief Durette advised they had nothing outside of low band. The State put a lot of money into interoperability for Police, but had not funded a great deal of money for Fire and EMS. The site for EMS and Fire would be Pead Hill in Wilton. If they would be doing everyone, he would put everybody on that mountain. However, getting this through the FCC was a difficult task and time consuming and is why phone lines were used as a stop gap measure while awaiting licensing.

 In response to Mr Durette's answer to DPW Director Bruce Berry's question, Mr. Berry indicated he would be supportive of high band assuming they will get through the licensing issues. Amherst Deputy Fire Chief Matt Conley asked about training and if this was something when dispatchers were hired or was it on a continuous basis? EMS Director Gleason, as a follow up question, asked if they had a schedule for recall for people not on the regular schedule? The Chief advised each had initial in-service training for the remaining of their career. They try to make it mandatory on the State level. Relative to the recall process, there was always an OIC that can be called in seconds. They also had dispatchers that held pagers and were always an immediate contact for help.

In response to Chief DeSilva's question, Chief Durette said if Amherst was to come on board, he would put two people on the midnight shift. Mr. Heaton commented that if Amherst was to ask the Sheriff's Office to provide the town's dispatch services, it sounded as if it would be a significant increase in their call volume. He asked what the County's philosophy was relative to this type of increase? The Chief indicated the County was half way through building their new building and talked about increasing the dispatch center when working with the architect and described the new area and generator involved. Addie Hutchison asked if Amherst came on board, how quickly could they outgrow their facility? Mr. Durette indicated that most of the larger communities such as Manchester, Hudson, Nashua, did their own dispatching. They only facilitate the smaller communities and were all set with them and have space for additional smaller ones.

EMS Director Gleason commented that the Sheriff's Department has Bedford as their backup in a catastrophic event. Chairman Dinkel mentioned that if Amherst was to pursue this, there were many details they had to work out and asked how many counties did they service? Mr. Durette indicated that Rockingham dispatched for almost all of their towns with several duplications. Mr. Dinkel thanked the Chief for coming in and advised the Board would be in close contact.

Mr. Weber reported that all of the department heads will be getting together to help analyze all of the options and hopefully will have the analysis within several weeks. Derry Fire will be meeting with the Board next week relative to an \$800,000 upgrade. The department heads are working independently to look at pros and cons – the Board will have information by the 31st of March and will have six months to implement their options.

Citizens' Forum

There were no concerns or questions from members of the audience.

Minutes

Mr. Bowler moved to approve the minutes of February 9, 2004, seconded by Mrs. Peterman amended as follows: Line 57 – change "257K" to "80K" and change "80K" to "257K"; Line 115 – add "she said at the end of the sentence; line 158 – correct typo to "surfing". Vote: Unanimous.

Other Business

Mrs. Peterman asked that the Board again review the draft of the Water Charter before March 15th when she will ask for the Board's decision because what affects Nashua also affects Amherst since the town is part of the core system. She has also asked that the State Reps be invited at this time to discuss the various bills they are discussing.

Mr. Bowler reported that mixed paper would now be added to the recycling area at the Transfer Station.

306 307 308 309	Mr. Heaton advised that the Landfill Committee would like to hand out a survey at the polls in March - this area will be manned, during the 14 hours, by the committee. Mr. Dinkel asked if any of the Board members had a problem with the survey being handed out - there were no comments forthcoming.
310 311 312 313 314	Mr. Heaton reported the Heritage Commission has been looking into landscaping in front of the Town Hall. The suggestion was made that they wanted to bring the discussion before the Historic District Commission before they came to the Selectmen. He thought it a good idea to have their input before the Board made any comments. Mr. Weber advised he was meeting with the group the next day.
315 316 317 318	Mr. Weber briefly commented about the new color scheme being proposed in the meeting room (indicating there were several patches for the Board to review). He also indicated that other features for the meeting room will be lighting.
319 320 321	Mr. Dinkel mentioned a concern of a pile of dirt located on the Bedford/Amherst line and that Charlie Tiedemann will address this mater.
322 323 324 325	The Board briefly discussed the email issues received relating to the Veteran's exemption being proposed by the town. Mr. Weber indicated he will poll "list serve communities" relative to this issue. Mr. Bowler remarked that Nashua voted not to do anything for the Veterans.
326 327	Non-Public Session
328 329 330	Mrs. Peterman moved to enter non-public session,, second by Mr. Bowler. Upon a raise of hands the Board voted unanimously to enter non-public session at 9:52 p.m. under RSA 91-A:3 II (a).
331 332	The Board exited non-public personnel at 10:30 p.m. and voted to seal the minutes.
333 334	Upon a motion made and duly seconded, the Board adjourned the meeting at 10:30 p.m.
335 336	Respectfully submitted,
337 338	Sharon L. Frydlo
339	Executive Assistant

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BOARD OF SELECTMEN MINUTES **FEBRUARY 23, 2004**

Chairman Jay Dinkel called the meeting to order at 7:29 p.m. Selectmen present: Steven Desmarais and Robert Heaton. Also present was Executive Assistant Sharon Frydlo.

Official Welcome of New Director for Planning & Developmental Services

Mr. Dinkel officially welcomed the new Director, Charles Tiedemann, and reaffirmed his position as Director of Planning & Developmental Services. He indicated now the "real work begins" and thanked him for taking up the intern position that made the department run "like it didn't miss a step". After a brief celebration, the Board continued their regular scheduled meeting.

Eileen Cavallaro Re: Farmer's Market

Ms. Cavallaro mentioned that over the past several years, she had been involved with Wilton, New Boston, Bedford, and last year Milford with their Farmer's Markets. People with whom she has spoken want a Farmer's Market in Amherst. Her first thought was to have it in the parking lot of the Black Forest, however, after research felt having it on the Common would be better. The hours would be from 3:00 to 6:00 p.m. on Thursdays. She is on the New Hampshire Farmer's Market Board and if approved, would be her 50th one.

Mr. Desmarais thought it a good idea if they don't have logistical problems and would like the DPW and Historic District Commission to look into it. Mr. Heaton asked about offering commercial space on town property for this group who might be in competition with others who don't have this opportunity and also asked about fees? Ms. Cavallaro explained the Markets are non-profit, but the farmers do make one. She said she would like to have eight vendors for Amherst. Every farmer pays for traffic control and signage as well as for insurance. The area on the common, she thought appropriate, was the area near the church.

Mr. Dinkel asked about permits that might be required or would it be something the Selectmen would just approve. Mr. Tiedemann thought it would be something the Selectmen would decide on similar to the Antiques on the Green event. He asked how large of an area would be used. Ms. Cavallaro said that each vendor utilizes an 8-10' area with pop-up tents. In using the Common, they would park on the outside and bring everything inside. In response to Mr. Heaton's question, she said there were five vendors in Milford with high foot traffic. She thought Amherst would generate a lot of traffic because there is a lot of movement through town. Mr. Dinkel mentioned that if they went forward, he would like her to also talk to the Police Chief.

Helen Rowe, HDC Chairman explained the Commission did not know any more than the Selectmen did and would like to hear from some of the people who live around the Common. Mr. Heaton suggested holding a public hearing on the matter. Jefferson Davis indicated he was a buyer of local products and supports local growers. This would be a great place to meet with friends that is what the Common will do. This is a social thing and he couldn't say enough about it and they should make it happen, he said. Addie Hutchison asked what made her pick Thursdays? Ms. Cavallaro advised that Manchester has theirs on Thursdays and it was a good night for most of them. She also advised that she was opposed to music because it was very distracting.

Mr. Dinkel suggested she meet with the Police Chief, Director of Public Works and Charlie Tiedemann and report back the results at the public hearing. He also suggested that these Department Heads also attend the public hearing to answer any questions that may arise. He thought it a great concept without it being too intrusive and welcomed activity in the Village.

Derry Fire Re: Communications

Fire Chief George Klauber and Captain Scott Jackson met with the Board. The Chief advised he had been in the fire service for 27 years and spoke about his background. He talked about a new dispatch center being created that will also include new equipment. Currently they have one dispatcher and during busy times have two. Their goal is to put two dispatchers in the center at all times – they have five and were looking to get eight as well as putting in an administrative person Monday through Friday. Chief John DeSilva commented about the initial radio testing that went well. Derry Fire covers Windham, Hampstead, Auburn, Derry Fire and Chester. They meet monthly in the various towns and strictly discuss dispatching and protocols. He commented that they provide the service that the towns want.

Chief Klauber spoke about the fee structure being low for a long period of time. The number of calls and the size of the communities have grown and he said they came up with a price they feel is fair for everyone. He briefly spoke about the formula used to determine the cost and also mentioned they had asked all the towns to sign three year contracts. He ran the numbers for Amherst and thought they would be able to dispatch Fire and EMS for less than \$50,000 per year. This was based on all the communities staying with Derry Fire. He also explained that if Amherst was to come on board, the fees would be paid to the Town of Derry and not Derry Fire.

The Chief told the Board that they make data available for EMS and Fire and use the Red Alert System – this is done on a monthly basis or more often if needed. The information consists of how many car fires did they have, how many calls in a particular part of town, call density and types of calls and this is done using Crystal Reports.

Captain Jackson explained his role was to take care of everything associated with the airwaves. They were proposing two ways of getting dispatching to Amherst. He met with Chief DeSilva two months ago and one of the things talked about was using the police antenna. The initial proposal was to go with two telephone lines to transmit and receive the primary connection. Their main site was on Warner Hill and some radio testing indicated they got from that site to Amherst. He spoke about UHV versus VHF as back up. The estimated cost for the telephone lines, cross band RF link to both sides and a new card would be \$17,580.43 and a \$160.50 monthly charge for the telephone lines.

83.

Fire Chief Klauber commented that dispatch centers that do all three services – police, EMS and fire have not been extremely successful in doing all of them at the same time. Fire Chiefs want fire and EMS and the Police want people who understand their needs and Derry Fire do not do police dispatching. Their dispatchers are trained for fire and EMS and all are certified for NFRA standards for dispatchers and they all have medical backgrounds. Mr. Heaton asked why did EMS go together with fire? Mr. Klauber said that nationally the EMS departments have gone in with the Fire Department and had formed a partnership that goes back for at least ten years. Their dispatchers were professional fire dispatchers who provide medical assistance over the phone. Steve Bair added that one of the biggest differences between fire and police is that police always use a series of codes, while the Fire Department use plain English. Police usually only have single incident locations. Fire dispatchers need to know the location, how many buildings were nearby and/or vehicles and they also handle mutual aid as well as how many vehicles were responding to an incident.

There was a brief discussion about accreditation, interoperability and back up system. Chief Klauber asked the Selectmen to review the information they had provided them and looked forward to coming back to fill in some of the gaps. Mr. Dinkel asked about their call volume. The Chief responded that they have five towns (would like eight or nine) and do approximately 25,000 calls a year. The Board was invited to call the Fire Chiefs in the other towns to ask about Derry Fire's services. He also advised that if

103	Amherst was to come on board, they would look for a three year contract and at the end of two years,
104	with one year left, they have an automatic re-opener. Mr. Dinkel asked for a copy of their department
105	budget to be forwarded to either Carl Weber or Sharon Frydlo. He thanked both gentlemen for coming in
106	to talk to them about what they had to offer.
107	
108	Other Business
109	
110	Nancy Foster, reporter from the Cabinet, asked several questions about the communication process with
111	Mr. Dinkel responding to them. Chief DeSilva told the Selectmen they will have most, but not all of the
112	data by next week. Once it was put together they would like to present the data to the Selectmen,
113	hopefully by March 8 th .
114	
115	Award Fire Radio Bid
116	
117	Chief DeSilva explained he would be putting out a formal radio bid rather than just getting quotes. This
118	item was tabled for several weeks.
119	
120	Minutes
121	
122	The minutes of February 16, 2004 were tabled until the Board's next meeting.
123	
124	Non-Public Session
125	
126	Upon a roll call voted, the Board voted unanimously to enter non-public session at 9:15 p.m. under
127	RSA 91-A:3 II (a).
128	
129	The Board exited non-public session at 9:30 p.m. and voted unanimously to seal the minutes.
130	
131	Respectfully submitted,
132	
133	
134	Sharon L. Frydlo
135	Executive Assistant

Emergency Communications Analysis Report

Appendix: MACC Base Minutes

MINUTES OF THE MEETING OF THE BOARD OF GOVERNORS OF THE MILFORD AREA COMMUNICATIONS CENTER

PRESENTATION OF THE FIVE YEAR CAPITAL IMPROVEMENT PLAN

AUGUST 13 2003

Present:

Theo de Winter, Chairman, Greenville
David Fagan, Vice Chairman, Amherst
Stanley Schultz, Wilton
Michael Putnam, Milford
Pete Savage, Mont Vernon
Nelson Taylor, Director
Raine Carson, Secretary
Representatives from the Boards of Selectmen, Department Heads
and various interested parties of the six member towns.

The Chairman called the meeting to order at 7.30p.m. in the Banquet Hall of the Milford Town Hall.

Chairman de Winter thanked the individuals present for this meeting for attending, and stated the purpose of the meeting was to present the proposed Five Year Capital Improvement Plan. He provided a brief history of the capital improvements and how this has been handled over the years. He stated that at all times, effort was made to keep the cost of running the Center as low as possible. Capital improvements were therefore done only on an as needed basis. With the Intermunicipal Agreement running out as of December 31 2003, the Board has given considerable thought in developing a five year program for capital improvements. With this, he stated, a beginning will be made in putting funds aside on an annual basis for future use. The Chairman explained that, as discussed at various board meetings, application has been made for a FEMA grant to offset the cost of the proposed plan, if successful. Mr. de Winter explained that during September 11 MACC dispatched for the County during the period when those dispatchers were being relocated. MACC is located in a critical area in such emergencies. The grant application is in the amount of \$250,000.00 and the Chairman advised that a meeting has already been held with the FEMA representatives, and MACC has been advised it is in the running.

The Chairman introduced the members of the Board of Governors, the Director and the secretary to those present at this meeting, and then handed the floor to the Director to give the presentation on the Five Year Capital Improvement Plan as proposed as of August 2003. This Plan is made a part of the Minutes of this meeting by reference thereto.

Upon completion of the presentation, the Chairman opened the floor to questions and comments from the audience.

On answer to a question from Amherst, Mr. Taylor stated that the costs as proposed were obtained from the manufacturers of the equipment the Center plans to use.

The Town of Amherst also pointed out that the plan as proposed resulted in a large expenditure by the member towns in the first year, to which the Director responded by stating that it will indeed be high for 2004 but that from then on the expense relative to the Plan will be less per year.

Pete Savage added that for years the Capital Reserve accounts have been severely underfunded because of constant attempts to keep the annual cost of running the Center as low as possible. Chairman de Winter added that every one has tried to keep costs down at each budget hearing over the years, but this has all resulted in no funds being available.

Questioned on the life of the equipment proposed, Mr. Taylor advised the radio equipment has a useful life of 20 to 40 years. All of the equipment proposed may be able to be used beyond its life span, but replacement could also depend on the advance in technology.

In response to a suggestion from the floor that the first year's impact be spread over two years, Chairman de Winter stated that lease/purchase agreements have been used in the past, but the expense now proposed could not be spread over more than five years because that is the term of the Intermunicipal Agreement, and the Plan as proposed, is already spread over five years. He added that every effort has been made to obtain a grant to assist in the expense impact.

Relative to the grant application, the Mont Vernon Fire Department offered to provide letters in support of the grant application. Mr. de Winter stated that this has not yet been requested in the initial review of MACC's application, but should this be needed, such letters would be requested of the member towns and departments. Mr. Savage stated that MACC needs to do the upgrade as proposed, whether the grant money comes through or not. Chairman de Winter stated that if the member towns have to fund this project, and then the grant money is received, the towns would be refunded accordingly.

The Town of Lyndeborough questioned if the proposed upgrading of equipment would increase the Center's ability to serve more towns. The Chairman responded by assuring all present would indeed provide this possibility. He added that seeking more member towns has been discussed many times by the Board, but with the current equipment unable to handle any increased load, it was not pursued.

In answer to a question from the Town of Wilton regarding the standing on the five year renewal of the Intermunicipal Agreement, Chairman de Winter advised the issue is still being discussed with the Town of Milford. He added that if the Agreement is renewed for one year only, then the full cost of the proposed upgrading would have to be borne in that one year.

The Town of Lyndeborough stated it had unanswered customer service problems and needed those answered before that town could consider a five year Agreement. Mr. Schultz responded by stating that the Board needs to know what those problems are in order to resolve them, but it is essential that the complaints be submitted in writing. Chairman de Winter stated that the written complaints need to be addressed to Director Nelson Taylor before any progress in handling them can be accomplished. Lyndeborough continued that it still had two outstanding issues awaiting attention, which had been submitted in writing. The Chairman stated that in order to respond to a complaint, the Director has to spend time listening to the tapes, and with the current work being done by the Director regarding the paperwork etc. on the upgrading, such time has not been available.

Regarding the space in the Milford Town Hall occupied by MACC, a question was raised on the floor in the matter of the security of this space. The Director advised that current the space is rented on a month to month basis. Usually the rent agreement is for the same five year term as the Intermunicipal Agreement. He added that currently Milford has another tenant, namely US Cellular, that may need some of the space in this area which would result in adjustments. Once the US Cellular issue is resolved the Center will go back to a five year rental term. Ms. Katie Chambers, Milford Town Administrator, offered the information that US Cellular will be above the area occupied by MACC, and that they should only be taking up attic space.

Further to the issue of a one year Intermunicipal Agreement, Pete Savage stressed that it would be impossible for the Center to make plans for upgrades etc. with a one year Agreement term. It would not, under those circumstances, be able to enter into any contracts for equipment. David Fagan added that it would be impossible to apply for grant monies with a one year contract. This would result in the Center having to remain in the condition it is now and with the same inadequate equipment.

Ms. Katie Chambers addressed the assembly and stated that the Town of Milford desires a one year Agreement, but according to the Intermunicipal Agreement a five year renewal is required, unless a written notification is submitted by a town one year in advance of the termination of the existing Agreement, of its desire to change that term or to withdraw from the Agreement.

In answer to a question from the floor regarding the current proposed expense and new member towns joining after that expense is made, the Chairman advised that any new member town would have to pay its share of the current equipment in the Center, and he cited the Town of Greenville as the example.

Referencing accepting new member towns, Stanley Schultz stated that currently the Center does not have the equipment to take on additional members; it does not have the manpower for the additional work load it would entail; it does not have the space (dispatch space) to accommodate additional manpower. He stated that part of the Capital Improvements Plan as proposed, is to be able to provide better service to the member towns. With better equipment to work with, and an improved work station, the staff would be happier and from this would follow better service.

In the matter of a one year renewal of the Agreement, the Chairman stated there are two member towns who are suggesting this one year instead of the five year. One is the Town of Milford which has submitted written reasons. The other is the Town of Amherst which is now talking about a one year term. He stated this proposal is creating serious problems with the staffing of the Center. Dispatchers are already looking elsewhere for more secure employment. Without dispatchers the Center cannot operate. He stressed that the Board of Governors is not considering a term of less then five years in the Intermunicipal Agreement. If the Town of Amherst has reasons for its suggested one year term, the Board would like those reasons in writing.

Michael Putnam addressed the assembly and stated that suddenly many complaints are being referenced at this meeting. He stated the Board was aware of problems and is working hard on the service and equipment difficulties.

Pete Savage stated that the meeting of tonight is to discuss the proposed Capital Improvements Plan. The Board is aware of problems, but if the towns have particular problems, the Board has to be advised in order for them to be addressed. He stressed that service quality and equipment issues should not be combined. They are two separate entities.

The Town of Amherst stated it would like to see an Operational and Service Quality Plan developed.

The Town of Lyndeborough stated that the correct tools are needed for the staff in order for them to do a good job, but suggested that perhaps better training of the operators is also needed. The Director responded by stating that part of the cost for the new equipment covers training of the staff.

On the issue of various problems experienced by the member towns, Stu Draper, Selectman of Wilton, put forward the suggestion that any problems should be delivered to the Board of Governors through that town's representative on that board. He added that he had not heard, in his experience with MACC, of a problem that had not been solved through the Director, Nelson Taylor. The chairman expressed concern that towns had problems, but that those were never delivered to either the Board or the Director, and put out the question to all town representatives present at this meeting, as to why they were not talking to their representatives on the Board of Governors. David Fagan, Amherst's representative to the Board of Governors, stated he had never received written notification from Amherst Fire Dept. of any problems. He added that he had not yet met with the new fire chief at all.

Stanley Schultz stated that this meeting was called in order to advise the member towns that MACC is out of date as far as equipment is concerned. He realises, he said, that towns have problems, but this meeting is not the place to air those grievances. Instead this meeting is to advise of the plan proposed in order to correct many problems being experienced because of the out of date equipment, and to receive input and have discussion on the plan proposed.

Lyndeborough again returned to its personnel problems, and claimed the Board did not address the issues. Mr. Schultz reiterated that unless the Board is advised in writing of a problem, be it staffing or equipment, it can do nothing to resolve the problems.

In the issue of the proposed Capital Improvements Plan, the Town of Mont Vernon stated that it behaves all member towns to work together and to stay together for the benefit of all. It was added that it required a lot to create MACC in the beginning, and the proposed Capital Improvements Plan will greatly assist in improving the service provided.

The Mont Vernon Fire Department requested quarterly meetings with the Director and agents from the member towns. It was felt this would assist in solving various problems as they occur.

The Chairman again reminded the assembly that this meeting was not the place at which to raise and review service problem issues; he added that the sole purpose of this meeting is to discuss the Capital Improvements Plan. Mr. de Winter stated that the Board does not micro-manage the Director, and leaves him to run the Center and deal with the problems himself. The Board desires only to hear about the problems if the Director cannot settle them. However he stressed that the Board is accessable to anyone who wishes to bring any problems to their attention personally.

The Chairman issued an open invitation to all present to attend the Board's regular monthly meetings, and urged all with any complaints to advise that town's representative to that Board. He expressed the opinion that if the representative is not advised of difficulties, then the Board is unlikely to know about them either.

The Town of Amherst stated that a one year Agreement creates difficulties for the Center, its personnel and the Capital Improvements Plan. The question was raised as to what time span the Board needs to proceed with its current plans. The Chairman responded by stating that the Board is about to begin work on the budget for 2004 and it would appreciate knowing what any town plans to do by December 1st, that is whether any town is considering a one year or a five year agreement.

The Town of Lyndeborough stated that such an expenditure as is proposed would have to go before a town meeting for approval. Mr. de Winter explained that once the budget is settled and finalized by the Board and the Budget Committee made up of selectmen from the member towns, it becomes an assessment on each town, and does not require a vote of any town meeting.

At this point, Director Taylor explained to the assembly how the new equipment as proposed, would increase the effeciency of the Center, and most of all the safety of firemen and police.

The Town of Milford expressed the opinion that being the major contributor to the costs of the Center, it should have a weighted vote. Mr. Schultz responded by stating that for years the Board has tried to keep costs down in the running of the Center. This has resulted in outdated equipment and inefficient service about which complaints are heard. The Board is attempting to provide better quality service now, and the costs therefor have been spread over a five year time span to reduce the impact on the towns for any one year.

Selectman Herman, Town of Milford, complained about the cost of the Plan and the impact on the tax rate. The Chairman responded by stating that the letter of complains and demands from Milford was only received a few months ago, and therefore the year or more notification of upcoming costs she was requesting now, was impossible.

Selectman Draper, Town of Wilton, stated he did not agree with the weighted vote for Milford. He advised that that town, like all member towns, has a voice at budget hearings; he added that he had never heard that the Town of Milford did not receive anything it requested and so the weighted vote was not required. He advised Milford to replace its representative to the Board of Governors if it was not happy with the way in which that Board operates.

In the matter of a five year Agreement, the Town of Wilton stated it was willing to go with the five years. That town also suggested that representatives from the towns of Amherst and Milford get together with their boards of selectmen "... and get on with it". Wilton supported acquiring the new equipment as has been proposed, and offered the opinion that it is needed, should be purchased, in order to do a job as is needed. It was felt the new equipment would reduce the problems in the field. The Town of Wilton stated that the only way the kind of service that is desired can be obtained, is by acquiring the new equipment. That town suggested again purchasing the equipment, and getting the job done.

The Town of Amherst questioned if the cost of the Plan could be spread out if the towns went with a five year Agreement, to which the Chairman answered in the affirmative. Selectman Draper of Wilton reminded all present that the costs of the proposed new equipment cannot be spread over more years than are in the Intermunicipal Agreement.

There being no further discussion on the proposed Five Year Capital Improvements Plan, Chairman de Winter thanked all present for their comments and suggestions and support, and invited anyone with any problems to come forward with same, either to the Director, that Town's representative, or to the Board of Governors direct.

Chairman de Winter announced that the date of the next meeting of the Board of Governors had been changed from August 20 to Wednesday August 27 2003, at 7.30p.m. in the Center's Meeting Room in the Milford Town Hall.

There being no further business to come before this meeting, the meeting was adjoured at 9.15p.m.

Respectfully submitted,

Raine Carson, Secretary

Varbon

Emergency Communications Analysis Report

Appendix: News Articles

Comm center facing problems

By Peggy Miller - Cabinet staff The Cabinet - August 21, 2003

MILFORD—The Milford Area Communications Center, which is supposed to handle crises, is in a crisis of its own.

This multi-town emergency dispatch center operated out of Milford Town Hall's top floor, needs new equipment to communicate with emergency units in the field, and staff training to address personnel problems, officials said. MACC-Base handles ambulance, police and fire calls for a sixtown district.

"We are in a crisis mode. We need new equipment. There are times when the system goes down, when a console fails," said Milford fire Chief Richard Pauley. "I could be calling in to get assistance and no one will answer."

Representatives of member towns met Aug. 13 to discuss a \$205,000 plan for new equipment in 2004.

But grants to help fund the equipment could be lost if some towns decide to drop out of the communications center, the MACC-Base's board of governors said. A decision about that, and the length of the towns' contract with MACC-Base, must be decided by December.

"We can continue as we are with only a one-year contract, but we can't qualify for grants with a one-year plan," said Dave Fagan, Amherst's representative to the board of governors.

Also at issue are recent complaints from different towns, including Lyndeborough and Amherst, about MACC-Base problems. Selectmen at the meeting were told that problems should be brought directly to the board of governors in writing and not discussed publicly. Board members said that they had full faith in Nelson Taylor, the MACC-Base administrator.

Some of MACC-Base's six member towns — Greenville, Amherst, Milford, Mont Vernon, Wilton, and Lyndeborough — are evaluating whether to renew their contract for only one year, rather than the automatic five years agreed on by the contract they signed in 1998. There are complaints about how dispatchers handle calls, about technology breakdowns, and problems with communications between the communications center and emergency personnel in the field.

"The last couple of months, things have been shaken up and we have been flooded with complaints," said Mike Putnam, Milford's representative to the board of governors.

Amherst and Lyndeborough selectmen said they were concerned about personnel issues and equipment and say they might renew their contracts for only one year.

And Milford officials are demanding a greater number of votes on the board. They feel that because Milford contributes a greater amount to MACC-Base operations, they deserve more power in the voting structure. They also believe Amherst should have more votes on the board for the same reason.

But Jay Dinkel, chairman of the Amherst Board of Selectmen, said he is mainly concerned about quality of service.

"We all want it (MACC-Base) to be viable. But the quality of service provided is the bottom line," said Dinkel. "We are a customer and we need issues addressed."

Some of those issues are related to equipment failure.

After the meeting, Milford fire Chief Rich Pauley said outmoded equipment has often failed and firefighters have lost contact with MACC-Base during a fire.

Pauley referred to an Elm Street fire during which firefighters called for additional manpower but couldn't get through because of an equipment failure.

The board of governors is pursuing a FEMA (Federal Emergency Management Agency) grant for an initial \$205,000 investment. They also presented a plan to establish a capital reserve fund to help fund equipment updates.

Other towns believe that the equipment is needed, both to improve operations and to allow for expansion by giving the system greater capability.

Mont Vernon fire Chief Kevin Pomeroy believes there are real economies of scale with improved equipment as well as the potential for greater expansion. Pomeroy, who helped start MACC-Base and once served on its board of governors, supports continuing the communications center and believes it is the only useful way to handle multiple towns' need for emergency dispatching.

Pomeroy is troubled, though, over Milford's threat to pull out if they don't get a larger vote. He believes that the board of governors was set up with one vote per town for a purpose. He says it is "like the Senate" and helps to equalize the towns and should not reflect town size.

"I feel that this is wrong for the system," said Pomeroy. "That is not the way MACC-Base is set up."

Lyndeborough Selectman Dwight Sowerby said his town was also thinking about a one-year renewal.

"Lyndeborough has expressed concerns. We have raised issues we need addressed," said Sowerby.

But Wilton Selectman Stuart Draper urged everyone to stay in and go with a five-year contract.

"We should vote a five-year contract, get on with this and give those people what they need to do the job," he said.



Wednesday, March 10, 2004

9/11 workers on right wavelength

BY <u>Dibya Sarkar</u> Feb. 04, 2002 RELATED LINKS Printing? Use this <u>version</u>. Email this to a friend.

Answering the Call: Communications Lessons Learned from the Pentagon Attack

"Tech shows sharing is possible" [Government E-Business, Dec. 7, 2001]

"Local officials step up" [Federal Computer Week, Dec. 3, 2001]

"Call goes out for communications" [Government E-Business, Oct. 3, 2001]

"Command centers in control" [Government E-Business, Sept. 14, 2001]

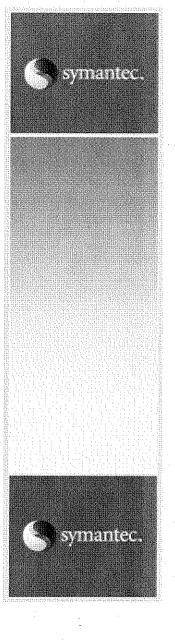
A new report reveals that most local public safety agencies initially responding to the attack on the Pentagon Sept. 11 had little difficulty communicating with one another.

The report, "Answering the Call: Communications Lessons Learned from the Pentagon Attack," was released Feb. 1 by the Public Safety Wireless Network (PSWN) Program, a joint initiative sponsored by the Justice and Treasury departments. The program's goal is to help the public safety community improve wireless radio interoperability.

Interoperability has been a major focus among public safety organizations and governments for years, but has become a national focus following the Sept. 11 attacks. Many public officials have said first responders in many jurisdictions cannot communicate with one another because many operate on different radio frequencies.

During the Pentagon attack, 50 local, state and federal public safety agencies responded to the incident, resulting in about 900 radio users, the report said. Initial responders, led by those from Arlington County, Va., had no problem establishing communications at the scene due to "the high-level of regional coordination and agreements previously established," it said.

Robert Lee Jr., a PSWN program manager representing the Justice



Department, said part of the success stemmed from the problems first responders had when Air Florida Flight 90 crashed into the 14th Street Bridge and into the Potomac River in 1982.

He said several public safety agencies, including the National Park Police, Washington, D.C., fire and police, Arlington County rescue units and authorities from then-Washington National Airport, were "dissatisfied with their ability to communicate" and set about making changes.

"Cooperation is the key," Lee said. "If you can't get people to sit down and talk with each other, they'll never come up with technological and procedural solutions to meet the challenge."

The report found that:

- * Regional planning and coordination efforts produced procedures for mutual-aid interoperability for local jurisdictions.
- * Local agencies regularly rehearse mass casualty incidents.
- * Agencies had early establishment of and strict adherence to a formal incident command system.
- * Responders found that their private land mobile radio systems were the most reliable form of communication.

However, the report noted that as state and federal agencies, which are considered secondary responders, increased their presence at the site, "no means of direct interoperability was immediately available" for them. It also said the level of interoperability necessary to support these secondary responders had not been documented.

Lee said the PSWN report, which contains a number of recommendations, should be used to see how communities and regions can increase their interoperability. "In the emergency services, stress is inevitable," he said. "It's really, really comforting to responding entities that they have plans and procedures to fall back on and they have appropriate equipment to meet the challenges. If we don't plan ahead of time . it makes it all the more frightening for responders and all the more confusing for the initial ones to help."

Washington Business Journal - September 30, 2002 http://washington.bizjournals.com/washington/stories/2002/09/30/focus3.html

Business Journal

IN DEPTH: TECHNOLOGY

From the September 27, 2002 print edition Expert Opinion

After 9/11 agencies trying to get on same wavelength

James Ridgell

Words and terms such as "interoperability" and "Project 25" have been in the vocabulary of the public safety communications industry for some time now. However, after the Sept. 11 attacks and the attending communications breakdowns, the terms have taken on a new significance — and, in the case of interoperability, a new urgency.

Interoperability means the ability of radio equipment on different systems to communicate with each other. Project 25 refers to the process that developed standards for digital wireless communications interoperability.

A recent report commissioned by New York City shows that the inability of personnel from different organizations to communicate with one another cost the lives of dozens of first responders on Sept. 11.

The report states that New York police officers were able to hear warnings from a helicopter that the North Tower of the World Trade Center was glowing red, and most of the police officers exited the building safely — while dozens of firefighters, who could not hear these warnings, died when the tower collapsed.

The first responders at the Pentagon also experienced similar problems, because federal law enforcement personnel could not communicate with the local police officers and firefighters, which caused some confusion in the coordination of rescue efforts.

The communications breakdowns on Sept. 11 were not isolated incidents, but a symptom of a larger problem in achieving interoperability.

Interoperability doesn't just happen; it must be planned.

Historically, getting numerous agencies from different levels of government in the same area to work together on a communications interoperability plan can be a difficult task.

There can be many reasons for this, such as resistance to replacing and integrating an existing communications system with surrounding agencies or a lack of political control or simply a lack of funding to make the changes.

Sept. 11 taught us a painful lesson about our readiness, and the reasons for not having interoperability become lost in the drive for homeland security.

Project 25: A History

Even though Sept. 11 may have shown us the importance of Project 25 compliance and interoperability, most people have never heard of Project 25 and don't know how it was developed.

Project 25 is a joint effort among the Association of Public Safety Communications Officials, the federal government and the National Association of State Telecommunications Directors.

The intent was to develop standards for digital telecommunications technology, including standards for digital radio equipment that embraces elements of interoperability.

The Project 25 standards were established with input from three sources: the public safety community at federal, state and local levels; the telecommunications industry; and the Federal Communications Commission.

With the threat of terrorist attacks still very real and a large number of public-safety organizations likely to be involved in the response, the need for federal, state and local personnel to effectively communicate with each other has never been more clear, or more vital.

So vital, in fact, nearly all federal agencies now require compliance to Project 25 standards.

This requirement will certainly have an effect on state and local agencies as well, because the nation's airport security is being federalized.

For example, if there were an attack or other emergency situation at Baltimore/Washington International Airport, the federal personnel would have an absolute need to communicate efficiently with the surrounding state and local agencies.

In addition, because of BWI's location, personnel there may need to communicate with personnel from Baltimore, the District, Reagan National Airport and Dulles International Airport.

So you can see that Project 25 compliance and interoperability can, and probably will, have a widespread effect on state and local agencies.

Impact on Telecommunications

The establishment of Project 25 standards has had a profound impact on the telecommunications industry because most manufacturers base their design and development of new equipment on compliance with Project 25 standards.

Having said that, there is much work to be done to achieve interoperability.

First, the various agencies in the multiple jurisdictions must work together to define channels and procedures that determine interoperability.

Second, the technical barriers must be addressed. Achieving interoperability involves overcoming challenges such as varying frequency bands and incompatible technologies within frequency bands. The key is to establish a common denominator — a minimum set of technologies and procedures to ensure effective communications among people who respond to incidents.

Third, funding for new or upgraded communications systems can be one of the most challenging issues for smaller agencies with limited budgets.

Once the proper steps are taken, personnel from various agencies at different levels of government will be able to share information that could carry life and death significance.

It has been a year now since the attacks on the World Trade Center and the Pentagon. In many ways life in America has returned to normal, but talk to anyone involved in public safety at any level and they will tell you their lives are nothing like they were on Sept. 10, 2001.

Our leaders remind us almost daily that the possibility of another terrorist attack is not a matter of if, but when. We must never forget what happened on Sept. 11 or the lessons we learned as a result.

Fully interoperable communications not only makes sense, but it also provides the right tools for our first responders and law enforcement agencies to save more lives and thus deter terrorism by making us a less attractive and less newsworthy target.

James Ridgell is vice president for federal business in the Washington office of Waseca, Minn.-based EF Johnson Co., a provider of equipment to public-safety organizations. E-mail: jridgell@efjohnson.com Phone: 202/833-7553

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Lyndeborough selectmen air MACC Base complaints

By Rick Dumont Cabinet staff

LYNDEBOROUGH-The primary emergency communications center for the area (MACC Base) came under fire Tuesday night at a Lyndeborough Board of Selectmen meeting, where selectmen reported receiving a number of complaints citing rude dispatchers.

Bruce Geiger, a resident in Lyndeborough, told the board that he and his neighbor were "rudely" brushed off Saturday when they tried to get police help for ATVs riding on Purgatory Falls Road.

"We were told there was nothing they could do" because there were no police on. Geiger said.

MACC Base director Nelson Taylor, who was not at the Tuesday meeting, said in an interview Wednesday morning that he is waiting for further information on that incident before evaluating the legitimacy of the complaint and determining who was responsible.

That incident marks the third or fourth time in recent months that Lyndeborough selectmen say they have had people come

to them with problems about the dispatchers.

"We pay a lot of money to MACC Base," Lyndeborough selectmen Dwight Sowerby said. "There has certainly been a lack of customer service"

Selectmen spoke of a recent incident in which dispatchers apparently questioned EMT requests for a second ambulance to be sent to a scene during a recent incident.

And Sowerby himself reported an occasion where he felt the dispatchers were less than helpful when he was attempting to obtain contact information for police Chief Earl Nelson. Sowerby believes dispatchers had the information and were unwilling to release it to him.

"I'm most displeased," he said, adding that the board should consider looking at other avenues for their dispatching services.

Taylor, meanwhile, said that while he takes the complaints seriously, he needs formal reports from selectmen before he can react to them.

"It's almost impossible for me to correct problems I'm not aware of," he said.

"I think it's unfortunate" to publicly release complaints "without first validating their legitimacy," Taylor said.

In addition to the concerns raised Tuesday. Taylor said he is aware of two formal complaints filed by Lyndeborough fire Chief Rick McQuade, although those were procedural in nature. While he was not specific. Taylor said that those issues have been investigated, and action has been taken to correct the problem.

Taylor said that he plans to send McQuade a report on his findings.

"It's difficult to keep ev-

erybody happy," Taylor said, considering MACC Base dispatches for six towns and has to answer to a number of department heads from each town. But he said he makes every effort to attend to each issue that is brought before

The Lyndeborough Board of Selectmen will meet with MACC Base officials next Wednesday in Milford to air its complaints. Taylor said the meeting was originally scheduled so that MACC Base could present its five-year capital improvement plan, which includes a major upgrade to the radio system.

Comm center squabble continues

Suddenly Milford wants to own all the equipment

By Peggy Miller Cabinet staff

MILFORD—The future of the Milford Area Communications Center (MACC-Base) could hinge on the willingness of Milford voters to fund the purchase of \$250,000 worth of equipment for the emergency dispatch center.

If, that is, there is any organization left by the time voters make a decision.

According to MACC-Base Director Nelson Taylor, staff members are concerned with an apparent lack of commitment to the organization from member towns and are looking for other jobs. He told the MACC-Base Board of Governors that sometimes there is only one full-time staff member on duty.

"We are in a crunch situation with the staff. We are down three full-time people now. Another one just resigned," he said.

And Milford selectmen are increasing their demands on towns that want to remain part of the center, and some towns say they might pull out.

Amherst continues to eval-

uate whether to remain in the organization, and Lyndeborough and Wilton are expressing doubts about staying in the wake of a change in Milford's position on the purchase of new equipment. Milford, which houses the organization in its town hall, would own the equipment, officials say, even if Milford quits MACC-Base.

"My board (of selectmen) told me they want to keep the equipment no matter what. We don't expect payment for it at all," Selectman Cynthia Herman told the board of governors last week.

At a previous meeting, Herman had said Milford would attempt to get voters to pay for the equipment with a warrant article, but other member towns would pay Milford back and eventually all the towns would own it.

And, she said, Milford selectmenwant to keep the MACC-Base contract renewal on a monthly, rather than annual, basis.

This did not go over well with the other member towns.

Wilton's representative, Stan Schultz, expressed immediate and strong opposition, saying that the organization had been set up to balance the power within the member towns, large or small. Then Lyndeborough's Dwight Sowerby pushed to give the towns an extra three months to decide what they want to do. The board refused, with members saying they wanted a faster resolution to the issue.

The only town that seemed committed to the organization was Mont Vernon, and Peter Savage, its selectman representative, tried to get the board of governors to compromise.

Jay Dinkel, selectman representative from Amherst, proposed that the contract details be ironed out by the end of December and members be given until March 31, 2004 to decide if they want to stay in.

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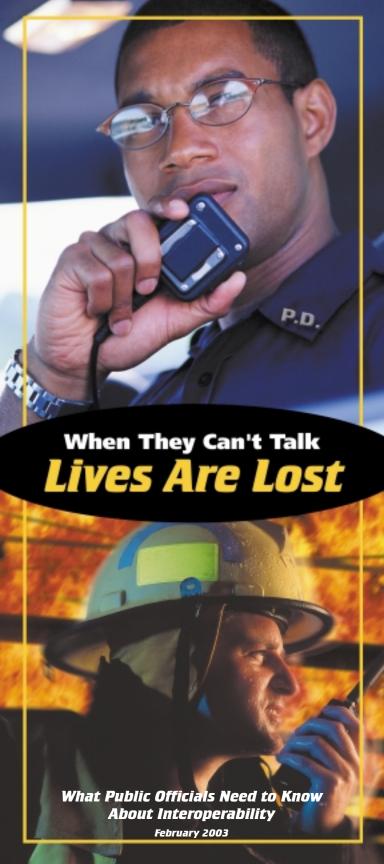
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Emergency Communications Analysis Report

Appendix: Interoperability



This brochure was prepared through a collaboration of the following organizations.

- Association of Public Safety Communications Officials International, Inc.
- International Association of Chiefs of Police
- ◆ International Association of Fire Chiefs
- International City/County Management Association
- ◆ Major Cities Chiefs
- ◆ Major County Sheriffs' Association
- National Association of Counties
- National Association of State Chief Information Officers
- National Association of State Telecommunications Directors
- ◆ National Conference of State Legislatures
- National Criminal Justice Association
- ◆ National Emergency Management Association
- National Governors Association
- ◆ National League of Cities
- National Public Safety Telecommunications Council
- ◆ National Sheriffs' Association
- ◆ The Council of State Governments
- ◆ The United States Conference of Mayors

Did You Know?

ou grew up watching cop shows on television. When the police were in trouble, they could pick up the radio anywhere, anytime, and help would instantly arrive. In reality, this is often not the case. We all watched in horror as the second tower of the World Trade Center collapsed. Did you know that police received the radio message that the building was going to collapse, but firefighters never received that message because they use different radios?

Five years to the day before the 9/11 terrorist attack, the Public Safety Wireless Advisory Committee (PSWAC) reported that "unless immediate measures are taken to alleviate spectrum shortfall and promote interoperability, public safety will not be able to adequately discharge their obligation to protect life

◆ Did you know that the police, EMS teams, and firefighters sometimes have to juggle as many as five different radios because each agency communicates on different systems?

Did you know that first responders had to use runners to carry messages from one command center to another in the immediate aftermath of the Oklahoma City bombing because they did not have common radio systems?

Do you know how often agencies cannot talk to one another or to agencies in their neighboring cities, counties, or States? Is yours one of them? and property in a safe, efficient, and cost-effective manner."

Several years later, public safety is still grappling with inadequate spectrum and radio communication systems that do not communicate with one another.

f Fire and rescue departments from different jurisdictions routinely work together to provide emergency services to the public, but they cannot always communicate with one another. It is critically important that the entire fire and emergency services community support the need for improved communications interoperability and additional spectrum. State and municipal officials and the organizations that represent them nationally, working with emergency first responders, are an integral part of this significant effort to improve interoperability.

> Chief Randy Bruegman President, International Association of Fire Chiefs

While events of the magnitude of 9/11 or Oklahoma City do not occur every day, there are many daily events that require different agencies and jurisdictions to be able to communicate with one another. Incidents such as traffic accidents, missing children, fires, high-speed chases, rescues, and chemical spills occur with frightening regularity and they know no boundaries. When they occur in your community, will your agencies be able to talk to one another?

Why Can't They Talk?

ublic safety agencies historically have depended upon their own stand-alone radio communication systems and they are often incompatible with one another. Not only are there different systems for different agencies within one community, different jurisdictions maintain their own systems, too. There are approximately 2.5 million public safety first responders in the United States. They work for 18,000 State and local law enforcement agencies, 26,000 fire departments, and more than 6,000 rescue departments, plus Federal law enforcement, tribal law enforcement and other agencies, such as State and Federal emergency management, transportation, and the public utilities who all need to talk to one another during critical incidents.

Who Is Public Safety?

Advisory Committee (PSWAC), public safety Wireless
Advisory Committee (PSWAC), public safety service providers
perform emergency first response missions to protect and
preserve life, property, and natural resources and to serve the public
welfare through local, State, or Federal governments as prescribed
by law. Public safety support providers include those whose primary
mission might not fall within the classic public safety definition, but
who may provide vital support to the general public and/or the
public safety official. Law enforcement, fire, and EMS fit the first category, while transportation or public utility workers fit the second.
Public safety service providers also include non-governmental
organizations who perform public safety functions on behalf of the
government. For example, a number of local governments contract
with private groups for emergency medical services.

Why Is This Important To You?

he public looks to you—their elected and appointed officials—to provide basic public safety, and guidance and management during a crisis. You are responsible for making critical funding decisions using scarce taxpayer dollars. You understand the political dynamics in your community and in the surrounding jurisdictions. Citizens expect the public sector to function like a business—consistent and effective customer service, everywhere and at any time.

Ultimately, the public expects their lives and property to be protected by all governments—local, State, or Federal—without distinction as to



There are not only different systems for different agencies within one community, different jurisdictions maintain their own systems, too.

who responds to their needs. Understanding the current status of public safety radio communication systems in your community—its capabilities and limitations and plans for upgrading or replacing those systems—is critical. If your public safety agencies cannot communicate directly with one another by radio to coordinate life-saving activities, inevitably some lives will be lost. What can be done?

Interoperability. What Is It?

nteroperability is the ability of public safety agencies to talk to one another via radio communication systems—to exchange voice and/or data with one another on demand, in

Why can't they just use cell phones

nfortunately it's not that simple. Although public safety regularly use cellular phones, personal digital assistants (PDAs), and other commercial wireless devices and services, these devices are currently not sufficiently suited for public safety mission-critical communications during critical incidents.

Public safety officials cannot depend upon commercial systems that can be overloaded and unavailable. Experience has shown such systems are often the most unreliable during critical incidents when public demand overwhelms the systems.

Public safety officials have unique and demanding communications requirements. Optimal public safety radio communication systems require: real time, when needed. Most people assume that public safety is already interoperable. In many cases, public safety officials can't even talk to their own agencies.

Equally as critical as interoperability is the need for basic communications within public safety agencies. When the issue of interoperability is raised, officials respond that they are unable to even talk to their own personnel. The first priority must be to provide public safety with mission-critical radio communication systems that provide reliable agency-specific—police, fire, EMS—communications. (Mission-critical radio communications are those required when life or property is at stake.) As jurisdictions build or upgrade current systems, that priority should be expanded to include the provision of reliable and interoperable local and regional communications, and, ultimately reliable and interoperable local, State, and Federal communications.

- Dedicated channels and priority access that is available at all times to handle unexpected emergencies.
- Reliable one-to-many broadcast capability, a feature not generally available in cellular systems.
- Highly reliable and redundant networks that are engineered and maintained to withstand natural disasters and other emergencies.
- The best possible coverage within a given geographic area, with a minimum of dead zones.
- And, unique equipment designed for quick response in emergency situations—dialing, waiting for call connection, and busy signals are unacceptable during critical events when seconds can mean the difference between life and death.



66 Imagine a different public safety communications future. A future where emergency responses are coordinated, where information is shared in real time, where precious minutes are not wasted, and where emergencies are handled more effectively and safely.

> Judi Wood, Chief Information Officer, Maryland Department of Public Safety and Correctional Services

Why Aren't Public Safety Communications Already Interoperable?

ive key reasons. Incompatible and aging communications equipment, limited and fragmented funding, limited and fragmented planning, a lack of cooperation and coordination, and limited and fragmented radio spectrum.

- ◆ Different jurisdictions use different ent equipment and different radio frequencies that cannot communicate with one another, just as different computer operating systems will not work together or an AM receiver will not accept an FM signal. There are limited uniform standards for technology and equipment.
- ◆ There is limited funding to replace or update expensive communications equipment, and different communities and levels of government have their own budget cycles and funding priorities.
- Planning is limited and fragmented. Without adequate planning, time and money can be wasted and end results can be disappointing. Agencies,

jurisdictions, and levels of government compete for scarce dollars, inhibiting the partnership and leadership required to develop interoperability.

The human factor is a substantial

obstacle—agencies are reluctant to give up management and control of their communications systems. Interoperability requires a certain

amount of shared management, control, and policies and proce-

dures.

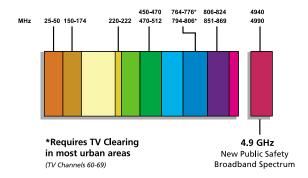
 There is a limited and fragmented amount of radio spectrum available to public safety.

What Is Radio Spectrum?

t is electronic real estate—the complete range of frequencies and channels that can be used for radio communications. Spectrum is the highway over which voice, data, and image communications travel. Radio spectrum, one of our Nation's most valuable resources, is a finite resource—what exists today is all there ever will be.

This is a job that requires policy-makers across jurisdictions to work together for the common good—to plan, fund, build, and govern interoperable public safety communications systems.

Public Safety Radio Spectrum Bands



The Federal Communications Commission (FCC) has allocated certain frequencies or channels to public safety, but it is inadequate and scattered widely in 10 discrete bands across the spectrum, making it difficult for different agencies and jurisdictions to communicate. Initially, almost all public safety communications were confined to the low end of the frequency range, but as technology advanced and improved, transmission at higher frequencies became possible, offering a temporary solution for congestion and crowding. The result—public safety operates in 10 separate bands, which has added capacity, but which has also caused the fragmentation that characterizes the public safety spectrum today.

How Can I Help My Constituents and Colleagues Understand the Importance of Interoperability?

our role as a public official provides you the unique opportunity to take the initiative. Your constituents and colleagues need to be educated about the importance of an interoperable public safety communications system that will make it possible for local, State, and Federal public safety agencies to talk to one another, to coordinate life-saving operations, and to provide a basic level of public safety.

Public perceptions are shaped by the news shows and articles, movies, and television that tell a different story from the true state of public safety communications. The public that reads news stories about computers in patrol cars, amazing life-saving technologies in rescue vehicles, and the latest state-of-the-art dispatch center may find it difficult to believe that their public safety agencies cannot talk to one another.

This is a job that requires policymakers across jurisdictions to work together for the common good—to plan, fund, build, and govern

interoperable public safety communications systems. Policymakers at all levels need to collaborate to develop radio communications interoperability for emergency response and incident prevention. It begins with a dialogue among the stakeholders.

What Is Your Role?

reating interoperability requires leadership, planning, and the development of partnerships among disparate groups at the local, State, and Federal level. In order to effectively respond to emergencies, all levels of government and industry must plan for interoperability among all parties from the outset. The ability to be in voice contact and exchange data among all emergency responders should be designed in from the start.

State and local governments must take the lead to collaboratively formulate an interoperability architecture that provides a roadmap for all to follow. In short, public officials at all levels of government should:

- Understand the importance of interoperability;
- Be able to effectively communicate the benefits of interoperability to the public;
- Understand the political and institutional barriers within the public safety community that can impede interoperability;

- Facilitate collaborative planning among local, State, and Federal government agencies;
- Encourage the development of flexible and open architectures and standards; and
- Support funding for public safety agencies that work to achieve interoperability within an agreedupon plan.

Where Are You Now? What Is the Status of Your Public Safety Radio Communications?

- he basic questions to consider are:
- What types of emergencies like traffic accidents typically occur in your community, region, or State and which public safety agencies would respond to each of them?
- How about major crimes like bank robberies or large-scale fires or natural disasters like hurricanes?
- Who needs to talk to one another every day?
- Who should be able to communicate and share data in the first 8 hours of an emergency?

Solutions to this national issue can only be achieved through cooperation between all levels of government.

• Who will need to be added to that initial group if the emergency continues for longer than 8 hours?

Once you know the answers to these questions, assess your resources. For

example, what existing communications infrastructure such as radio towers do you already have? What financial resources are budgeted for public safety communications? There are assessment tools that can be used to determine the level of interoperability in your

How Much Will It Cost?

here are several issues to con-

community, region, or State.

sider, including what is already being spent on public safety communications in your area and how much it will cost if you don't develop interoperability. Planning for interoperability can be incorporated into the process of replacing and upgrading radio communication systems. Individual costs will depend on the state of communications in your area and which short-and long-term direction you choose to follow. The nationwide investment in radio systems and supporting infrastructures is substantial. As agencies replace aging equipment and adopt new technologies,

the amount of money invested in communications equipment will continue to grow.

How Can You Achieve Interoperability?

nteroperability begins with leadership and partnerships. It begins with open, equitable discussions among all the stakeholders. Look beyond turf concerns and focus on partnerships. Develop a common voice to facilitate budget and policy decisions. Strength in improving interoperability is built by working together with agencies and jurisdictions that have traditionally been viewed as competitors for scarce dollars.

Before developing the solution, define the problem by performing a complete assessment of your current state of communications. This includes understanding what your first responders need. Planning includes policies and procedures, building a governing structure, and identifying potential resources.

This is not a "one size fits all" problem and there is no single solution. There are short- and long-term strategies for improving interoperability—some involve improving coordination and cooperation among responding agencies and jurisdictions. Other strategies require longer term plan-

ning and implementation of new systems, policies, and operating procedures. Expectations need to be realistic, solutions take time.

Where Can I Learn More About Interoperability?

guide collectively created by a task force of national associations representing public officials at local and State levels, titled, Why Can't We Talk? Working Together to Bridge the Communications Gap to Save Lives, begins to answer these questions and more.

- ♦ Why Can't Public Safety Agencies Talk?, discusses the barriers to interoperability—the lack of coordination and cooperation, incompatible and aging communications equipment, limited and fragmented planning and funding, and limited and fragmented radio communications spectrum.
- Are You Prepared?, discusses evaluation and assessment of public safety radio communication systems and financial resources, and provides interim technology strategies to achieve interoperability.
- How Can My Community Achieve Interoperability?, comprises several chapters that discuss plan-

We are working to get beyond the technical jargon to develop a common sense language that the average person can understand. Quite simply, our task is to find ways to achieve real time communication between different communities. jurisdictions, and responders so we can save more lives in a crisis.

> Vicki Barnett, Council Member Farmington Hills, Michigan

ning, governance structures, and funding strategies.

Why Radio Spectrum Matters to You, provides a historical perspective of spectrum, a discussion of the additional spectrum that has been allocated to public safety, and technologies that can increase the efficient use of spectrum.

Working Together

he inability of our public safety officials to readily communicate with one another threatens the public's safety and often results in unnecessary loss of lives and property. Recognizing that solutions to this national issue can only be achieved through cooperation between all levels of government, 18 national associations representing elected and appointed and public safety officials worked together on the National Task Force on Interoperability (NTFI) to address this issue.

The task force brings local and State elected and appointed officials together with representatives of the public safety community to develop national strategies for solving this critical public safety need.

Harlin McEwen, Chair, International Association of Chiefs of Police Communications Committee Communications Advisor, MCC, NSA, MCSA The task force met several times in 2002 to engage in an interactive dialogue on communications interoperability. The discussions provided an opportunity for public policymakers to partner their efforts with those of the public safety community to address interoperability issues in a more comprehensive way. As a result of this dialogue, NTFI developed Why Can't We Talk? Working Together to Bridge the Communications Gap to Save Lives to raise awareness about the importance of interoperability. It provides the basic information necessary to understand the impact of this issue and guidance about the initial steps to take in developing interoperable public safety radio communication systems.

Achieving interoperability is a challenging job. Without the collective voices of elected and appointed officials, without partnership, cooperation, and leadership at all levels, it is a job that will not get done. It is hoped that this guide will serve as a catalyst for public officials to begin other, continuing dialogues with public officials in their localities, regions, and States.

The National Task Force on Interoperability and the guide were supported by the National Institute of Justice's (NIJ) AGILE Program. ■

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Findings and conclusions of the research reported here are those of the authors and do not reflect the official position or policies of the U.S. Department of Justice. This project was supported by the National Law Enforcement and Corrections Technology Center (NLECTC)—Rocky Mountain. The center is operated by the University of Denver for the National Institute of Justice (NIJ).

This brochure, When They Can't Talk, Lives Are Lost, and it's companion guide, Why Can't We Talk? Working Together to Bridge the Communications Gap to Save Lives, are a collaborative effort of the following major associations for local and State elected and appointed officials and public safety officers.

For more information and to obtain a copy of this guide, please visit www.agileprogram.org/ntfi.































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Washington, DC 20531
www.agileprogram.org



Saving Lives and Property Through Improved Interoperability

Post-Symposium Support Report— Kentucky Public Safety Communications Interoperability Conference

FINAL

January 2003

Kentucky Public Safety Communications Interoperability Conference

The Public Safety Wireless Network (PSWN) Program and the Kentucky Governor's Office for Technology (GOT) cohosted the Kentucky Public Safety Communications Interoperability Conference in Lexington, Kentucky, on December 4, 2002. The conference brought together 121 local, state, and federal officials to discuss public safety communications and interoperability within the commonwealth (Attachment 1). During this full day of presentations, panel discussions, and audience questions, participants gained a better understanding of public safety communications interoperability within the commonwealth and learned about Kentucky's efforts to improve statewide public safety wireless communications.

Interoperability Efforts

Ms. Aldona Valicenti, Chief Information Officer, GOT, Commonwealth of Kentucky, opened the conference with welcoming remarks. Ms. Valicenti explained that she had been a member of the PSWN Executive Committee for several years and supported the efforts of the PSWN Program to improve public safety communications interoperability. She announced that Governor Patton could not attend because he was briefing the press on Kentucky's budget situation. Ms. Valicenti thanked everyone for attending and described the efforts of the conference. She explained that the conference was organized to help communities, cities, and states understand interoperability issues that had been exacerbated since the events of September 11, 2001. She pointed out that many public safety personnel have difficulty trying to communicate critical information because of inadequate communications equipment and infrastructure.

Acting as Frontline Soldiers

Major General D. Allen Youngman, The Adjutant General, delivered the keynote address on terrorism and homeland security issues. General Youngman began the address by discussing how dramatically the world changed 14 months ago with the events of September 11, 2001. He pointed out that international terrorism brought challenges that were hard to overcome. In particular, domestic terrorism was now an important issue, and there were an increased number of smaller organizations or groups that could potentially attack. At a national level, General Youngman said that the President had set the tone by saying, "...we can never again allow ourselves to become overconfident about the security of our homeland." General Youngman added, "The attack on 9/11 was a wake-up call. In 1993, the same attack took place, but we slept through it." In order for the Nation not to "sleep through" the September 11 attack, he presented a list of ways to strengthen homeland security—

- Enhance first responder programs
- Secure America's borders
- Combat bioterrorism
- Strengthen intelligence sharing
- Improve transportation security
- Support other national defense related initiatives.

General Youngman stressed that homeland security would take a number of years for efforts to be fruitful but that the Nation was off to a strong start. He stated that the local, state, and federal governments, law enforcement, military, volunteer groups, fire, hazardous materials responders, private sector, medical, emergency management, and other public safety agencies needed to pool their resources, and coordinate, integrate, and synchronize with each other. General Youngman stated that the Governor of Kentucky had developed the Governor's Security Working Group to determine Kentucky's ability to prevent terrorist attacks and had assigned General Youngman to lead the group. In addition, the Office for Security Coordination was developed with the following mission components—

- Coordinate a State Homeland Security Strategic Plan
- Coordinate outreach and awareness programs
- Coordinate "antiterrorism" education requirements
- Surface issues and coordinate options
- Help "build bridges" to interagency coordination and cooperation
- Assist in the identification of "dependencies and vulnerabilities" for critical infrastructure protection
- Coordinate the preparedness, reliability, continuity of vital services and critical infrastructure protection
- Coordinate and monitor all federal grants supporting homeland security.

In addition, he pointed out that the GOT was working at the state level to create a strategy so that when the Advisory System level changed, first responders and law enforcement would know what steps to take.

To conclude his presentation, General Youngman stressed that as a nation, we had to work together to fight the war on terrorism. He stated that this was a "...real war, one that we could not opt out of; we have no choice but to deal with it." He added, "The folks in this room are the frontline soldiers. You are making a difference. Thanks for what you do."

At this point in the presentation, the floor was opened for questions and comments. Mr. Mike Weaver, Representative, Kentucky Legislature, expressed concern that the State Legislature had not been informed about the Kentucky interoperability challenges or the assistance of the PSWN Program. His comment supported the need for interoperability assistance in the Commonwealth of Kentucky.

The State of Interoperability in Kentucky

The purpose of this session was to give conference attendees an overview of the PSWN Program and provide an opportunity for open discussion on interoperability challenges in Kentucky.

PSWN Program and Interoperability Presentation

Mr. Robert E. Lee, Jr., PSWN Program Manager, Department of Justice, explained the purpose of the PSWN Program and the program's past efforts to improve interoperability. Mr. Lee discussed that interoperability was the ability to communicate across radio systems on demand and in real time. He added that interoperability was necessary to facilitate rapid and efficient interaction among all public safety organizations and to provide immediate and coordinated assistance during day-to-day missions, task force operations, and mass-casualty incidents. Mr. Lee further emphasized the importance of states sharing information and lessons learned with others.

Mr. Lee stressed that the biggest challenge in interoperability planning was leadership. He said that the goal of leaders should be to educate others on the definition and meaning of "interoperability." He added that the PSWN Program had identified leadership activities, such as the development of a state interoperability executive committee (SIEC), involvement and action by state legislatures, increased funding, and executive-level awareness, that facilitated improved interoperability. He described an SIEC as a state executive-level group that coordinated interoperability efforts and acted as a central point of contact. He indicated that the SIEC should develop and enforce an interoperability plan set forth by the state, as well as review lessons learned from other states. He said that he felt that the PSWN Program could help the Commonwealth of Kentucky with SIEC development. He also mentioned that funding interoperable systems remained a challenge in times of state budget deficits. Mr. Lee suggested that sources of funding were available and potential solutions might include incremental funding. Ms. Valicenti further supported Mr. Lee's comment by saying that funding mechanisms were available and that "the Commonwealth of Kentucky needs to rally support to get the message across and secure funding." In addition, Ms. Valicenti stated that the governor was interested in hearing more about how to meet the interoperability challenge in Kentucky.

At this point, questions were asked. Representative Weaver suggested that the PSWN Program should change its mission statement from "communicate" to "talk" since its mission technically did not include data communications, only voice transmissions. Representative Weaver also asked why Kentucky was not one of the first 11 states to receive interoperability assistance from the PSWN Program. Mr. Lee answered that some of the states already had contact with the PSWN Program and others urgently needed the assistance, so the PSWN Program was able to reach out to them. In addition, the program had provided some states with interoperability assistance through case study efforts.

Mr. Lee discussed that the PSWN Program had also organized several case studies and pilot projects to investigate and develop technical solutions. He mentioned that there were

several PSWN Program materials available at the conference, as well as additional information online at www.pswn.gov.

Kentucky Interoperability Communications Strategy and the State of Communications Interoperability in Kentucky

Ms. Valicenti moderated a panel discussion on communications interoperability challenges. The panel members included Mr. Rodney Murphy, Director of Communications, GOT; Major Robert Miller, Kentucky State Police; Mr. Doug Robinson, Executive Director, Office of Policy and Customer Relations, GOT; Mr. John Patterson, State Administrator, Commercial Mobile Radio Service Emergency Telecommunications Board; and Mr. Mitchell Smith (replacing Lonnie Lawson), Project Manager for the Law Enforcement Technology Grant, Center for Rural Development. The panel members presented various examples of specific interoperability challenges, which were followed by an interactive session with conference attendees.

Mr. Rodney Murphy discussed voice and data interoperability challenges unique to the Commonwealth of Kentucky. He focused most of his discussion on the wireless data pilot projects occurring across the commonwealth. He stated that communicating and accessing data more effectively was the primary goal of each pilot. He mentioned that currently, both private radio pilot projects and "combo" pilot projects were under way. The private radio pilots were being conducted in Taylor, Fayette, Laurel, and Pike counties. The combo pilots were being conducted in Laurel, Pike, Scott, Henderson, and Taylor counties. Mr. Murphy explained that the combo pilots involved commercial wireless and satellite services to access data, with the goal of determining whether sufficient coverage was available in mountainous regions. He stated that although a few pilots would be completed in the Spring 2003, some pilots would continue through June 2003.

Major Miller shared his goal of equipping every public safety vehicle in the commonwealth with mobile data computers. He had been working on this project for four years. For the Kentucky State Police, interoperability would mean data, voice, and intelligence sharing, in real time. Major Miller focused on the idea of enabling all public safety officials (first and second responders) to communicate, not just by voice, but also using data communications. Operationally, systems should deliver statistical information capable of being accessed on a need-to-know basis.

Mr. Robinson explained the architecture and infrastructure for wireless systems in the Commonwealth of Kentucky. He added that convergence of voice and data was needed. Mr. Robinson explained that the lack of adequate systems planning was driven, to some extent, by proprietary technologies and inadequate funding. He said that in order to achieve greater interoperability, the state should take a leadership role and implement business practices that encourage the technology rather than allowing the technology to drive the process.

Mr. Patterson discussed the interoperability challenges for 911 centers. He said that "911 centers are the front end and back room of public safety." He supported his point by stating that all incident data must be entered into records management systems at 911 centers from the time

of incident initiation through the time that the incident is closed, and the data must be available to be queried long after incident closure.

Finally, Mr. Smith discussed standardization of public safety information systems. He explained that he had worked on a project that included 42 county regions and 110 law enforcement agencies, a situation that required a project plan that incorporated standardization. The project included four phases to achieve standardization and interoperability:

- 1. Provide basic information and equipment to connect on a global scale
- 2. Deploy laptop computers to 80 percent of fleet (750 laptops in police cars)
- 3. Test mobile data computing
- 4. Distribute software components across the state.

Next, questions and comments were accepted from the audience. Ms. Valicenti asked how to implement a strong communications vision if funding was limited. Major Miller responded by acknowledging that funding was always a challenge, but as leaders, everyone needed to pull together to create a work group or a funding subcommittee to seek funding. Mr. Murphy added that the Kentucky Wireless Steering Committee was developed to oversee the implementation of the Kentucky Wireless Strategic Plan. Ms. Valicenti followed up by asking whether the Commonwealth of Kentucky needed more help from its citizens. Mr. Murphy responded that assistance from local agencies and citizens was needed and that forming an SIEC would generate more involvement and representation of citizens.

In response to audience questions, Mr. Robinson further discussed standardization and reasons why systems should not be built on old systems that have proprietary technologies. Mr. Robinson stated that infrastructure costs were unavoidable and sharing systems could be an option to reduce such costs. Ms. Valicenti also responded by explaining, "We have more than 4 million people in the commonwealth, 1.4 million of which have cellular telephones. In addition, 35 percent of 911 calls are from wireless telephones. Citizens expect that their calls will go through." This statement further supported Mr. Robinson's discussion of avoiding the use of proprietary technologies and thinking about current technologies. In addition, an attendee voiced his opinion that "If you build infrastructure at the national level, then at the state level, it trickles down. Vendors shouldn't be driving, we should be telling them."

Additionally, a frequency question was posed to Major Miller about where Kentucky stood with regard to the 700 MHz frequency band. Major Miller replied that an application had been submitted and they were waiting for a response from the Federal Communications Commission. He further explained that network television companies were not vacating their frequency allocations quickly.

Elected and Appointed Officials' Perspectives on Communications Interoperability

Ms. Valicenti moderated a panel discussion on communications interoperability challenges from elected and appointed officials' perspectives. The panel consisted of Representative Robert "Buddy" Buckingham, Kentucky Legislature; Representative Mike Weaver, Kentucky Legislature; and Mayor Karen Cunningham, City of Madisonville. The panel

members presented various examples of interoperability challenges, which were followed by an interactive discussion with audience participation.

Representative Buckingham kicked off the panel discussion by stating that the conference was the beginning of a solution to Kentucky's interoperability challenges. He stressed that it was time to find and develop partnerships with the Federal Government, state, private sector, and local organizations to fund an interoperable wireless system. He also stated that Section 305 of the Homeland Security bill discussed allocating funds up to \$5 million for the establishment of centers for homeland security. He suggested that the Commonwealth of Kentucky should try to pursue that opportunity.

Next, Mayor Cunningham discussed the importance of "selling" the idea of a wireless interoperable system to the citizens of Kentucky. She challenged the conference attendees to look at any opportunities for groups to work together toward a collaborative effort to improve interoperability in Kentucky. She ended by saying, "Think about the cooperative efforts in your community and use those as building blocks for the wireless communications effort."

Finally, Representative Weaver described his concern regarding homeland security and the need to take aggressive action to improve public safety response and prevent terrorism. He said, "Successful homeland security means that we are capable of preventing as many incidents as possible and for those that can't be prevented, provide response information based on near or real time. This is critical to identify potential terrorists...communicating to those that need to know or need to act. Information, identification, communication." Representative Weaver described that he was taking proactive steps to change policy by making stricter laws for obtaining driver's licenses in the Commonwealth of Kentucky.

Ms. Valicenti then opened the floor to questions and comments from the audience. Mr. Joe Sifer, contractor support for the PSWN Program, asked how to effectively elevate public safety issues higher within the legislative committee. Both Representative Buckingham and Representative Weaver answered by explaining that it was necessary to involve the General Assembly and communicate to legislators the concerns about homeland security. Representative Buckingham added that agencies needed to talk locally about the issues and the concerns about an interoperable wireless system and then build the case for a system from the ground up.

Ms. Valicenti posed a question to Mayor Cunningham about how to involve local citizens. Mayor Cunningham explained that marketing material was needed that appealed to local agencies, such as a piece that would steer discussions toward the effects of an interoperable system on cellular telephones. In addition, she said it was important to have citizens ask the question, "How will this system help the agencies in my community and how is it going to interrelate with others?"

Another question was asked about the role of the legislative committee if the issue of funding was ignored. Representative Buckingham answered by stating that policy issues needed to be addressed and obtaining funds continued to be an issue. Representative Weaver added that legislation is being proposed to include a driver's license fee increase from \$8 to \$12. The money raised would go to the transportation cabinet. Representative Weaver ended the

discussion by saying, "If you think this a good idea and enhances homeland security and public safety agencies, then you have to speak up and say so."

Successful Models

The Tennessee Department of Safety and the Kentucky Division of Emergency Management presented success stories to conference attendees.

Tennessee Statewide Interoperability Communications Strategy

Mr. Bill Pogue, Chief of Technology Services, Tennessee Department of Safety, discussed the Tennessee pilot projects. He explained that the State of Tennessee had developed a plan to migrate from an old, analog radio communications system to an ultra high-speed, digital radio communications system. Mr. Pogue outlined the steps the State of Tennessee took to complete its system—building a plan, getting started, determining who should be involved, building for the future, and putting the plan into action.

To build the plan, Tennessee determined needed assets, identified and learned from national best practices, and requested PSWN Program support. Tennessee participants then defined an affordable solution that used their existing resources and system. To get started, Tennessee assessed the products that various vendors offered and determined standards to create unified systems. Tennessee worked to get strong representation for a steering committee and working groups. In order to build for the future, Tennessee began with a proof-of-concept pilot project centered in Nashville, which is divided into eight districts. Planners asked the legislative committee to become involved and again looked at other states as models. As part of the pilot project, it was determined that 18,000 Tennessee law enforcement officers needed software for their vehicles. Tennessee asked for and received shareware software from the State of Iowa because it could be customized to meet the commonwealth's needs.

Mr. Pogue ended his presentation by urging everyone to get involved and use the "lessons learned" from other states. He then opened up the session for discussion from the audience. A question was asked about where to get further information about the shareware. Mr. Pogue said that the information was available on the Iowa state Web site, on the Department of Transportation page at www.dot.state.ia.us/natmodel/index.htm. Another question was asked about the need for towers and partnering with wireless companies. Mr. Pogue responded by saying that Tennessee did not partner with wireless companies; however, as project implementation moved toward the mountainous region, the state might partner with the Tennessee Valley Authority, which owned fiber optics infrastructure.

The last question concerned mobile computers in police cars. An attendee stated that in California it took 8 minutes versus 20 minutes in other states to conduct a traffic stop and issue a ticket because other states did not have wireless data access in their police cruisers. Mr. Pogue responded by stating that with wireless coverage, it was possible to write a ticket in approximately 6–8 minutes. It was pointed out that the Tennessee legislative committee could use this type of information to support the increase in drivers' license fees.

Mr. Larry Burnette, Assistant Director, Kentucky Division of Emergency Management (KyEM), was scheduled to speak at the conference; however, Mr. Bob Stephens, Department of Military Affairs, KyEM, represented him. Mr. Stephens discussed the radio system used by KyEM. Mr. Stephens indicated that the legislative branch had provided \$1.2 million in funds to replace low-band remote stations. He stated that KyEM was able to obtain, and was on the verge of implementing, 12 paired frequencies in the 139 MHz band. KyEM had also purchased 20 Motorola Quantar repeaters. In addition, Mr. Stephens mentioned the Kentucky State Police used the same microwave backbone as the Kentucky Emergency Warning System.

Mr. Stephens discussed the Department of Justice, Office for Domestic Preparedness grants to his agency. He stated that some of these funds were being redirected to local agencies in Kentucky and additional funds from the Department of Justice would not be available unless the agencies had already made the appropriate arrangements. Mr. Stephens wrapped up his presentation by providing the Web site for his organization, http://kyem.dma.state.ky.us.

Interoperability as a Mission-Critical Function

Mr. Rick Murphy, PSWN Program Manager, Department of the Treasury, acted as the moderator and facilitated the discussion on interoperability challenges for mission-critical events. The panelists included Chief William Jefferies, Hopkinsville Fire Department; Chief Allen Love, Versailles Police Department; Mr. Richard Bartlett, Director, Louisville 911; and Ms. Louise Caldwell-Grant, Chemical Stockpile Emergency Management Preparedness Program (CSEEP) Coordinator, Fayette County.

Chief Jefferies discussed the necessity of understanding the concept of interoperability. He stated that legislative involvement improved interoperability and made the state stronger. Chief Love indicated that a significant problem in the past couple of years for his mobile data system was that the vendors of the products typically did not want to work with other vendors. As a consequence of these vendor issues, the initial investment could be much higher than necessary and the implementation process more problematic.

Mr. Bartlett discussed his experiences with implementing a 911 system. He said he first researched lessons learned from other areas such as Rockville and Tulsa. The Louisville 911 center considered forward compatibility paramount so that all mergers would be on the same platform. He said that currently, mobile data capabilities were being implemented using Radio Data-Link Access Procedure (RD-LAP) and cellular digital packet data (CDPD) service. Louisville 911 was in the process of linking the CDPD and RD-LAP systems together so that messaging could occur between them. Mr. Bartlett wrapped up his discussion by stating that his organization recognized that the next challenges to confront and solve would be interoperability related.

Mr. Murphy then opened the discussion for audience participation. A question was asked about the importance of backup and redundancy, to which Chief Love responded that redundant lines and redundant feeds were necessary to back up any system. A question was then asked of Chief Jefferies about twice-protected space. Chief Jefferies explained that in situations where

protection already existed, the first person on the scene would set up the incident command and the second-in-command would assist. Chief Love was asked whether the Hopkinsville Fire Department had an emergency operations center (EOC). Chief Love responded that his fire department did have an EOC.

The topic of funding was raised during the panel discussion. Mr. Bartlett told the audience to beware of unfunded mandates. He also indicated that there needed to be system standardization. He pointed out that if, in the future, a change to an interoperable system standardization was necessary, then potentially, changes would have to be made to multiple other systems—the costs for such changes would be huge, in particular because the systems were not based on compatible standards.

Where Do We Go From Here?

Ms. Valicenti wrapped up the conference by discussing the need to leverage existing organizational resources, improve standardization, and manage procurement processes. In an effort to motivate the audience to improve interoperability, she encouraged all participants to disseminate information to others, as well as get involved. As shown in the Table 1, Ms. Valicenti stated that a three-phase approach should be adopted in order for the Commonwealth of Kentucky to improve interoperability.

Table 1
Three-Phase Approach to Improve Interoperability

Phase	Action Items
Planning	Determine how to expand while still maintaining standardization of systems
Funding	Examine current expenditures and identify ways to refocus a particular source so that it could be used toward interoperability funding
Operations and Support	Use information presented from the pilot projects as examples

Ms. Valicenti concluded her presentation by indicating her appreciation for the support of the PSWN Program and speakers for sharing and educating conference attendees on interoperability issues. She ended by stating that the Commonwealth of Kentucky could deploy applications throughout the state because the infrastructure was already there; the commonwealth just needed to work in partnership with other agencies and the private sector. She said, "This is a partnership at various levels and a partnership with the vendors. We cannot sustain continuous investment, but the vendors can. Help us; don't divide and conquer; engage us so you can help us. We will be your customers." Ms. Valicenti closed by thanking everyone for attending the conference and giving credit to Mr. Lee and Mr. Murphy for cohosting the event.

On the same wavelength

Lack of communications interoperability among public safety responders can cost lives

BY JOHN MOUNTJOY

t is a common misconception that public safety responders (law enforcement, fire fighters, emergency personnel, etc.) can communicate efficiently and effectively in times of crisis. Popular television shows and movies portray public safety personnel as seamlessly coordinated in their communication and response efforts.

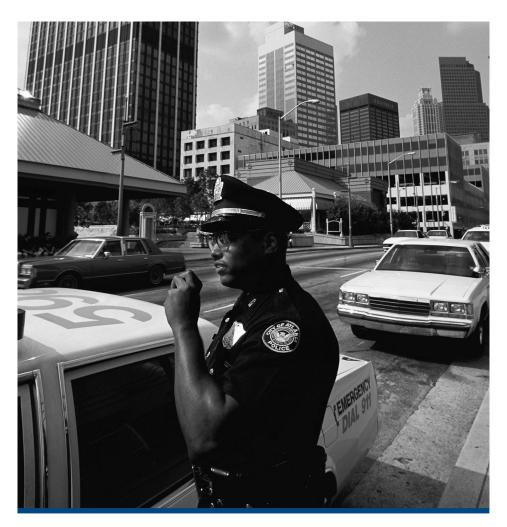
But reality is quite different. Police departments usually communicate with their fire fighting and EMS partners through communication centers, or through radio operators shuffling messages back and forth between agencies or - worse still - agencies using commercial cellular phones to plan and respond to critical incidents and even tactical situations.

With more than 2.5 million public safety first responders in the United States, communications interoperability among the 50,000 local, state and federal agencies is critical to ensuring effective and prompt emergency response.

Need for interoperability

Put simply, public safety communications interoperability is the ability of public safety, fire and rescue, and emergency management personnel to talk seamlessly over one radio and data system without hindrance, and across a wide area, such as a city, county or region.

Public safety communications interop-



erability, far from being a new invention, has been a desire of law enforcement, fire and rescue personnel for the past 40 years. The technology exists to make true interoperability a reality, but there are obstacles - including funding, standards, governance, radio spectrum and cooperation.

During the terrorist attacks of September 11, 2001, the issue of public safety communications interoperability came to a head. As police and fire and rescue personnel swarmed the Twin Towers, communications were either

nonexistent or fragile interoperable systems quickly broke down. While police received the command to evacuate as signs of collapse became apparent, fire and rescue personnel did not. Sixty police officers died in the subsequent collapses, but more than 340 fire and rescue personnel lost their lives. According to a University of New Hampshire ATLAS Project study, non-interoperable communications were at least partially to blame.

Other incidents of non-interoperability are too familiar. During the Oklahoma City bombing, responding agencies used different radio systems on different frequencies. The only solution was to use runners carrying messages between each of the different command centers. In Littleton, Colorado, the Columbine school shooting showed how a lack of communications interoperability among the 46 responding agencies cost precious response time while activity was still underway in the school.

State responses

In the wake of September 11, states and localities have made significant efforts to address the interoperability problem. While not created by the terrorist attacks, the issue has certainly been elevated in importance.

During the 2002 Winter Olympic Games in Salt Lake City, Utah, state officials used a new statewide public safety communication system known as UCAN (Utah Communications Agency Network). Developed in anticipation of the games, Gov. Mike Leavitt called for its creation in 1993 and it came on line in 1999. During the course of the 17-day games, the system handled 8.5 million transmissions and at its busiest, routed 580,000 transmissions in one 24-hour period. Designed to allow public safety officials across the state to communicate immediately, the system greatly benefited the games and shines as an example for other state-local efforts. UCAN also is an example of a state solving the problem itself, with only 20 percent of the \$40 million price tag covered through federal grants.

The issues public safety agencies face regarding interoperability are:

Technology. Radio equipment is expensive, and the new third-generation wireless technology - which provides mobile and satellite-based broadband capabilities - is out of reach for most local agencies, especially when one considers that a modern "walkie-talkie" can cost up to \$2,000 each. Different jurisdictions use different equipment and frequencies and often even agencies in the same community have difficulty talking. While devices continue to be miniaturized and civilian technology drops in cost, reliable, rugged and effective communications tools for public safety and emergency responders remain prohibitively expensive.

Spectrum. Radios must operate on specific and clear frequencies and there are a limited number of useable frequencies, most of which are used or reserved for other functions, such as television broadcasts or cellular phones (very high frequency, ultra high frequency, etc.). Spectrum is finite and is an invaluable resource for public safety and emergency responders. One of the most noticeable events is the move to high-definition television. HDTV broadcasts on a different frequency than traditional television. For years, public safety communicators have eyed these television frequencies as ideal and useful, because they blanket a wide area and can accommodate many users. Based on 1997 congressional action, the move to HDTV will not only improve the quality of television entertainment, but will contribute to better public safety communications interoperability.

Standards and governance. No uniform standard for public safety communications exists. Rather, a patchwork of systems, frequencies and protocols exists across the country, between agencies and in different jurisdictions within each state. Before true public safety communications interoperability can succeed, a shared set of standards at the local, state, regional and federal levels must be developed. The problem has been one of autonomy and independence. Communities and states have developed systems that met their standards and needs, but failed to take into account the needs of other communities and agencies in their area. As a result, few systems can talk. To alleviate this gap, leadership and cooperation at various levels of government and between all relevant agencies must take place.

Resources and funding. Money is a primary issue for interoperability. The systems in place around the country today, although inadequate for modern public safety needs, would themselves cost \$18 billion to replace, not to mention the enormous cost of purchasing and installing new, modern, third-generation systems. While money is a stumbling block, especially in this time fiscal austerity, creative solutions can help. Local, state and federal agencies can explore cost-sharing arrangements, new contracts and agreements with vendors, interstate and regional cooperation agreements and innovative ways to fund this critical need.



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